

Knowledge and Development

PHI 401



**University of Ibadan Distance Learning Centre
Open and Distance Learning Course Series Development**

PHI 401: Knowledge and Development

PHI 401: Knowledge and Development

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PHI 401: Knowledge and Development

Vice-Chancellor's Message

The Distance Learning Centre is building on a solid tradition of over two decades of service in the provision of External Studies Programme and now Distance Learning Education in Nigeria and beyond. The Distance Learning mode to which we are committed is providing access to many deserving Nigerians in having access to higher education especially those who by the nature of their engagement do not have the luxury of full time education. Recently, it is contributing in no small measure to providing places for teeming Nigerian youths who for one reason or the other could not get admission into the conventional universities.

These course materials have been written by writers specially trained in ODL course delivery. The writers have made great efforts to provide up to date information, knowledge and skills in the different disciplines and ensure that the materials are user-friendly.

In addition to provision of course materials in print and e-format, a lot of Information Technology input has also gone into the deployment of course materials. Most of them can be downloaded from the DLC website and are available in audio format which you can also download into your mobile phones, IPod, MP3 among other devices to allow you listen to the audio study sessions. Some of the study session materials have been scripted and are being broadcast on the university's Diamond Radio FM 101.1, while others have been delivered and captured in audio-visual format in a classroom environment for use by our students. Detailed information on availability and access is available on the website. We will continue in our efforts to provide and review course materials for our courses.

However, for you to take advantage of these formats, you will need to improve on your I.T. skills and develop requisite distance learning Culture. It is well known that, for efficient and effective provision of Distance learning education, availability of appropriate and relevant course materials is a *sine qua non*. So also, is the availability of multiple plat form for the convenience of our students. It is in fulfilment of this, that series of course materials are being written to enable our students study at their own pace and convenience.

It is our hope that you will put these course materials to the best use.



Prof. Abel Idowu Olayinka
Vice-Chancellor

PHI 401: Knowledge and Development

Foreword

As part of its vision of providing education for “Liberty and Development” for Nigerians and the International Community, the University of Ibadan, Distance Learning Centre has recently embarked on a vigorous repositioning agenda which aimed at embracing a holistic and all encompassing approach to the delivery of its Open Distance Learning (ODL) programmes. Thus we are committed to global best practices in distance learning provision. Apart from providing an efficient administrative and academic support for our students, we are committed to providing educational resource materials for the use of our students. We are convinced that, without an up-to-date, learner-friendly and distance learning compliant course materials, there cannot be any basis to lay claim to being a provider of distance learning education. Indeed, availability of appropriate course materials in multiple formats is the hub of any distance learning provision worldwide.

In view of the above, we are vigorously pursuing as a matter of priority, the provision of credible, learner-friendly and interactive course materials for all our courses. We commissioned the authoring of, and review of course materials to teams of experts and their outputs were subjected to rigorous peer review to ensure standard. The approach not only emphasizes cognitive knowledge, but also skills and humane values which are at the core of education, even in an ICT age.

The development of the materials which is on-going also had input from experienced editors and illustrators who have ensured that they are accurate, current and learner-friendly. They are specially written with distance learners in mind. This is very important because, distance learning involves non-residential students who can often feel isolated from the community of learners.

It is important to note that, for a distance learner to excel there is the need to source and read relevant materials apart from this course material. Therefore, adequate supplementary reading materials as well as other information sources are suggested in the course materials.

Apart from the responsibility for you to read this course material with others, you are also advised to seek assistance from your course facilitators especially academic advisors during your study even before the interactive session which is by design for revision. Your academic advisors will assist you using convenient technology including Google Hang Out, You Tube, Talk Fusion, etc. but you have to take advantage of these. It is also going to be of immense advantage if you complete assignments as at when due so as to have necessary feedbacks as a guide.

PHI 401: Knowledge and Development

The implication of the above is that, a distance learner has a responsibility to develop requisite distance learning culture which includes diligent and disciplined self-study, seeking available administrative and academic support and acquisition of basic information technology skills. This is why you are encouraged to develop your computer skills by availing yourself the opportunity of training that the Centre's provide and put these into use.

In conclusion, it is envisaged that the course materials would also be useful for the regular students of tertiary institutions in Nigeria who are faced with a dearth of high quality textbooks. We are therefore, delighted to present these titles to both our distance learning students and the university's regular students. We are confident that the materials will be an invaluable resource to all.

We would like to thank all our authors, reviewers and production staff for the high quality of work.

Best wishes.



Professor Bayo Okunade

Director

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PHI 401: Knowledge and Development

Contents

Study Session 1: Nature of Knowledge	11
Introduction	11
Learning Outcomes	11
1.1 Knowledge.....	11
1.1.1 The Gettier Problem.....	12
1.2 The search for a fourth condition for knowledge.....	12
1.1.2 Components of Knowledge.....	14
1.3 Types and Sources of Knowledge	16
Summary of Study Session 1	18
Self-Assessment Questions (SAQs) for Study Session 1.....	18
SAQ 1.1 (Testing Learning outcomes 1.1)	18
SAQ 1.2 (Testing Learning outcomes 1.2)	18
SAQ 1.3 (Testing Learning outcomes 1.3)	18
Study Session 2: Nature of Development	20
Introduction	20
Learning Outcomes	20
2.1 Development.....	20
2.1.1 Ideas of Development.....	21
2.2 Dimensions of Development.....	22
Summary of Study Session 2	29
Self-Assessment Questions (SAQs) for Study Session 2.....	30
SAQ 2.1 (Testing Learning outcomes 2.1)	30
SAQ 2.2 (Testing Learning outcomes 2.2)	30
SAQ 2.3 (Testing Learning outcomes 2.3)	30
Study Session 3: Theories of Development	31
Introduction	31
Learning Outcomes.....	31
3.1	Theories of Development
.....	31
3.2 Measurement for the Level of Development in the Society.....	39
Summary of Study Session 3	40
Self-Assessment Questions (SAQs) for Study Session 3.....	40
SAQ 3.1 (Testing Learning outcomes 3.1)	40
SAQ 3.2 (Testing Learning outcomes 3.2)	40
SAQ 3.3 (Testing Learning outcomes 3.3)	40
Study Session 4: Social Development	42
Introduction	42
Learning Outcomes	42
4.1 The Idea of Social Development	42
4.2 Millennium Development Goals	44
4.3 Millennium Development Goals (MDGs).....	45
4.3.1 Reasons for this Skepticism include:.....	47

PHI 401: Knowledge and Development

Summary of Study Session 4.....	48
Self-Assessment Questions (SAQs) for Study Session 4.....	48
SAQ 4.1 (Testing Learning outcomes 4.1)	48
SAQ 4.2 (Testing Learning outcomes 4.2)	48
SAQ 4.3 (Testing Learning outcomes 4.3)	48
Study Session 5: Science, Technology and Social Development.....	50
Introduction	50
Learning Outcomes	50
5.1 Science	50
5.1.1 Characteristics of Science	51
5.2 Nature of Technology	52
5.3 Science, Technology and Development.....	52
Summary of Study Session 5.....	57
Self-Assessment Questions (SAQs) for Study Session 5.....	57
SAQ 5.1 (Testing Learning outcomes 5.1)	57
SAQ 5.2 (Testing Learning outcomes 5.2)	57
SAQ 5.3 (Testing Learning outcomes 5.3)	57
Study Session 6: Indigenous Knowledge Systems and Development.....	59
Introduction	59
Learning Outcomes	59
6.1 Indigenous Knowledge?.....	59
6.1.1 Factors that influence Indigenous Knowledge.....	59
6.2 Specific Interests in Indigenous Knowledge.....	60
6.3 The Erosion of IK Systems	61
6.3.1 IK for Sustainable Development	62
6.3.2 Importance of IK.....	62
Summary of Study Session 6.....	63
Self-Assessment Questions (SAQs) for Study Session 6.....	63
SAQ 6.1 (Testing Learning outcomes 6.1)	64
SAQ 6.2 (Testing Learning outcomes 6.2)	64
SAQ 6.3 (Testing Learning outcomes 6.3)	64
Study Session 7: The Idea of Sustainable Development.....	64
Introduction	64
Learning Outcomes	65
7.1 Sustainable Development.....	65
7.2 Unsustainable Development.....	66
7.3 Strategies for Sustainable Development	66
Summary of Study Session 7.....	68
Self-Assessment Questions (SAQs) for Study Session 7.....	68
SAQ 7.1 (Testing Learning outcomes 7.1)	68
SAQ 7.2 (Testing Learning outcomes 7.2)	68
SAQ 7.3 (Testing Learning outcomes 7.3)	68
Study Session 8: Developmental University and the Question of National Development.....	70
Introduction	70
Learning Outcomes	70

PHI 401: Knowledge and Development

8.1 University	70
8.1.1 Conception of a University.....	70
8.1.2 The Idea of a Developmental University.....	71
8.1.3 Factors that Encourage the Wide Acceptance of Developmental University.....	72
8.1.4 Challenges for a Developmental University.....	73
8.2 The Bane (Hindrances) of National Development in Africa	75
8.3 Roles of a University in National Development	76
Summary of Study Session 8.....	78
Self-Assessment Questions (SAQs) for Study Session 8.....	78
SAQ 8.1 (Testing Learning outcomes 8.1)	78
SAQ 8.2 (Testing Learning outcomes 8.2)	78
SAQ 8.3 (Testing Learning outcomes 8.3)	78

Study Session 1: Nature of Knowledge

Introduction

This study focuses on an examination of the concept of knowledge. It begins with an inquiry into the traditional account of knowledge as it is presented in epistemology. It goes on to discuss experience and reason as two important sources of knowledge before highlighting some of the important forms of knowledge that we can have as humans.

Learning Outcomes

The objective of this Study Session is to facilitate a clear understanding of the concept of knowledge. At the end of this Study Session, you should be able to:

- 1.1 Define Knowledge
- 1.2 Highlight the Components of knowledge
- 1.3 Discuss the Basic sources and Types of knowledge

1.1 Knowledge

Generally speaking, Knowledge is a familiarity, awareness or understanding of someone or something, such as facts, information, descriptions, or skills, which is acquired through *experience or education by perceiving, discovering, or learning*. Knowledge can refer to a theoretical or practical understanding of a subject.

Box 1.1 Definition of Knowledge

Knowledge can be defined as the cognitive aspect of consciousness or the mental state of awareness of a given state of affairs, fact or information.

Knowledge however, involves being aware of something with some measure of certainty. It usually involves a process of learning, understanding and remembering. Hence, when a person says that he or she knows something, it means that he or she has an understanding of, is familiar with, or is able to recognize or identify the object of knowledge. As such, “to know” involves some measure of perception or apprehension, understanding or comprehension.



Figure 1.1: Portraying Knowledge

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Source: SchulPortals Inc. ©

Usually, the notion of knowledge is contrasted with that of **Opinion** or **Belief**, and it is for this reason that knowledge is traditionally conceived of as justified true belief. By this conception of knowledge, it is suggested that for a belief or opinion to amount to knowledge, it must be true and justified. Hence, for Miss A to know that P:

1. P must true
2. Miss A must believe that P is true
3. Miss A is justified in believing that P is true

1.1.1 The Gettier Problem

A number of criticisms have been levelled against the traditional conception of knowledge as justified true belief. The most prominent of these criticisms is the one presented by Edmund Gettier.



Figure 1.2: Edmund Gettier.

Source: <http://www.bloggang.com/viewblog.php?id=zol&date=06-12-2013&group=10&gblog=224>

However, the traditional conception of knowledge described above is also referred to as the *tripartite account of knowledge* because of the three important components of belief, truth and justification. He criticised the traditional account of knowledge by providing examples of beliefs which were both true and apparently adequately justified, but which did not amount to knowledge. His objective is to show that the traditional account of knowledge is inadequate as a theory of knowledge.

1.2 The search for a fourth condition for knowledge

The idea of infallibilism is considered as a viable fourth condition for knowledge. This suggests that to qualify as knowledge, a belief must not only be true and justified, the justification of the belief must necessitate its truth, and that is, the justification for the belief must be infallible.

Another possible fourth condition of knowledge is represented by the idea of indefeasibility. The notion of defeasibility maintains that there should be no overriding or defeating truths against the reasons that justify one's belief.

For instance, assuming that Miss. Jane believes she saw Kevin stealing a goat and uses this to justify the claim that Kevin stole a goat. A possible defeater or overriding proposition for such a

PHI 401: Knowledge and Development

claim could be a true proposition like, 'Kevin's identical twin, Karl is currently in the same town as Kevin and is the one that actually stole the goat.

A third alternative for the fourth condition is found in the notion reliabilism, which is a theory advanced by philosophers such as Alvin Goldman (1986). According to this, a belief is justified in a way that would count as knowledge only if it is produced by processes that typically yield a sufficiently high ratio of true to false beliefs. According to this view, what makes a true belief amount to knowledge is not that the knower has a justification for it, but that it has been produced in a way that reliably produce knowledge.

There is also the causal analysis alternative as the fourth condition for knowledge. This condition explains that what distinguishes cases of knowledge from cases of true belief is not just justification as seen in the justified true belief account of knowledge, but the causal connections of the belief.

If a true belief has the right sort of causal connections with what justifies it, then it is knowledge; however, if it has the wrong sort of causal connection, it is merely true belief. And what makes the causal connections of a belief the right sort of causal connections is that they connect the belief to the event which the belief is about.

Taking the case of Mr Adam's family and their car as an example again, Mr Adam's belief that someone in his family has bought a car is caused by his son's telling him that he has bought a car, combined with his belief that his son is honest and reliable. However, the fact that the son did not buy a car makes it clear that the son's buying a car is not the cause of Mr Adam's true belief that someone in the family had just bought a car.

The event that makes Mr Adam's belief true, which is that Mrs Adam bought a car, is causally unconnected with Mr Adam's belief that someone has just bought a car. If Mr Adam's son had bought a car and told his father so, then the honesty of the son and his lack of motive for lying would have led to the conclusion that Mr Adam knew that someone in his family had just bought a car.

By the causal analysis, Mr Adam's true belief would have amounted to knowledge because it is directly caused by the very event which makes it true, that is, the son's claim that he purchased a car.

Some scholars have also tried to resolve the Gettier problem by adopting the conclusive reason condition as an adequate complement for the traditional account of knowledge. It simply says that justified true belief can still yield knowledge if is based on conclusive reason. To say that A is a conclusive reason for B means that A cannot be true if B is false.

The traditional account of knowledge, as discussed above, identifies three conditions as necessary and sufficient for knowledge. The Gettier problem showed that these conditions are inadequate for a belief to amount to knowledge.

Hence, the search for a fourth condition with attempts to locate this in any of the following: infallibilism, indefeasibility, reliabilism, the causal analysis and the notion of conclusive proof. Be that as it may, none of these is fool-proof as each has peculiar problems identified with it.

PHI 401: Knowledge and Development

The above analysis of the notion of knowledge from the traditional perspective shows that it is quite difficult to subject it, like many other concepts, to philosophical analysis in a way that would yield a conception of knowledge that is problem free and generally acceptable. This quest is the primary concern of the division of philosophy called epistemology.

Nonetheless, we continue to employ the notion of knowledge in diverse spheres of life. We say that we “know of”, “know how” and “know that”.

Usually, we say that we know of people, things or even events. It is in this sense that one can say, for instance, that he or she knows (of) the way to Ibadan or Lagos, of the crisis going on in Syria and Egypt, and of the problems confronting Nigeria as a nation-state. Knowledge how is more practical in nature as it has to do with the skills and capacities that a person has. For instance we say that we know how to cook, how to drive and how to read.

There is also the knowledge that is described as propositional knowledge. It is usually in the form of X knows that Y. It is this form of knowledge claim that constitutes the primary focus of analysis in epistemology.

1.1.2 Components of Knowledge

The components of knowledge are listed and explained below:



Figure 1.3: Components of Knowledge

Source: SchulPortals Inc. ©

- **Belief:** The person believes that “P” must true. This belief might be more or less confident. And it might but it need not be manifested in the person’s speech, such as by her saying that “P” or by her saying that she believes that “P”. All that is needed, strictly speaking, is for her belief to exist (while possessing at least the two further properties that are about to be listed).
- **Truth:** The person’s belief that “P” needs to be true i.e. “Miss A” must believe that “P” is true. If it is incorrect instead, then no matter what else is good or useful about it, it is not knowledge. It would only be something else, something lesser.

Admittedly, even when a belief is mistaken it can feel to the believer as if it is true. But in that circumstance the feeling would be mistaken; and so the belief would not be knowledge, no matter how much it might feel to the believer like knowledge.

PHI 401: Knowledge and Development

- **Justification:** “Miss A” is justified in believing that “P” is true i.e. the person’s belief that “P” needs to be well supported, such as by being based upon some good evidence or reasoning, or perhaps some other kind of rational justification. Otherwise, the belief, even if it is true, may as well be a lucky guess. It would be correct without being knowledge. It would only be something else, something lesser.

■ The following are the components of knowledge except:

- a) Belief
- b) Truth
- c) Justification
- d) Ideas

€ Answer is option d) Ideas.

Let us consider a Gettier-style example:

Mr Adam’s son tells him that he has just bought a car. Mr Adam knows that his son is an honest person and does not have any reason to think that his son would be deceiving him in this matter. So, on the basis of what his son told him, Mr Adam believes that his son has just bought a car.

So when Mr Adam meets a friend who says to him ‘I heard that someone in your family has just bought a car’, Mr Adam replies ‘Yes, I know that someone in my family has just bought a car. But there are two facts unknown to Mr Adam. The first is that, very unusually, his son on this occasion was lying: he has not bought any car. The second fact unknown to Mr Adam is that his wife, Mrs Adam, has just secretly bought a car. The question now is: when Mr Adam said to his friend ‘I know that someone in my family has just bought a car’, was what he said true? Did he really have knowledge that someone in his family just bought a car?

In the above, the three conditions specified in the traditional account of knowledge are met. First, it is true that someone in Mr Adam’s family has just bought a car, that is, Mrs Adam. Second, Mr Adam believes that someone in his family has just bought a car. Third, Mr Adam seems to have adequate justification for his belief, since his source of information is his son, who we are told is honest and does not seem to have any reason that Mr Adam knows to be deceitful in this particular case.

So it seems that Mr Adam have a justified true belief that someone in his family has just bought a car, but, according to Gettier, he does not know this. The implication of this is that knowledge cannot be equated with justified true belief and the traditional account of knowledge is

PHI 401: Knowledge and Development

inadequate. To render it adequate, there are several attempts to identify a complementary fourth condition.

1.3 Types and Sources of Knowledge

Everybody irrespective of who you are, where you come from possesses a great deal of knowledge. You know about yourselves; you know about the world around you; you know about abstract concepts and ideas. Philosophers have often wondered where this knowledge ultimately comes from.

Of course, you learn a lot of things from books, from the media, and from other people. To process information from these sources, however, you must already know many things: how to read, how to reason, who to trust.

Epistemologists make a distinction between two basic types of knowledge as listed and explained below:

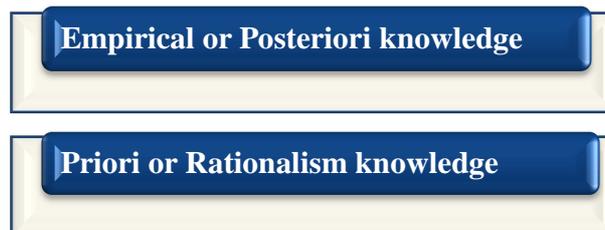


Figure 1.4: Types of Knowledge
Source: SchulPortals Inc. ©

1. **Empirical or Posteriori Knowledge:** Empirical knowledge is about the natural world and is derived by experience. Empiricists hold that all of our knowledge is ultimately derived from our senses or our experiences.

They therefore deny the existence of innate knowledge, i.e. knowledge that we possess from birth. Empiricism fits well with the scientific world-view that places an emphasis on experimentation and observation. It struggles, however, to account for certain types of knowledge, e.g. knowledge of pure mathematics or ethics.

2. **Priori or Rationalism Knowledge:** A priori knowledge is arrived at, without experience, on the basis of reason. This includes mathematical knowledge and relations of ideas. Rationalists hold that at least some of our knowledge is derived from reason alone, and that reason plays an important role in the acquisition of all of our knowledge.

PHI 401: Knowledge and Development

There is clearly a limit to what we can learn through abstract thought, but the rationalist's claim is that reason play a role in observation, and so that the mind is more fundamental than the senses in the process of knowledge-acquisition.

It is important to note that there is a sharp disagreement on the source of knowledge. Some epistemologists, known as empiricists, maintain that all knowledge is empirical in nature, that is, derived from experience, with the human mind, prior to experience, considered to be a *tabula rasa* (that is, blank).

However, this claims made by empiricists have been denied by another crop of epistemologists known as the rationalists. They deny that experience in itself can be a source of knowledge.

The debate between empiricists, such as John Locke, David Hume and George Berkeley, and rationalists such as Rene Descartes, Baruch Spinoza and Gottfried Wilhelm von Leibniz, over the nature of knowledge constitute one of the core issues of epistemology. It is worthy of note that scientific knowledge, which underlies much of the development and achievements recorded by humans in virtually all spheres of life is primarily empirical in nature.



Figure 1.5: Images of Philosophers

Source: <http://www-history.mcs.st-and.ac.uk/PictDisplay/Leibniz.html>

This gives some credence to the fact that, at least, some of our knowledge claims are essentially empirical in nature. However, there is also no denying the fact that some knowledge claims, such as are made in mathematics, are not empirical in nature.

They are arrived at on the basis of our reasoning about and basic understanding of the relationship between certain ideas. For instance, once we understand what the figure 2 stands for, as well as have an understanding of the concept of addition, we would know that $2 + 2 = 4$. Hence, we can conveniently say that we have at least two types of knowledge, a priori and a posteriori or empirical knowledge.

PHI 401: Knowledge and Development

Summary of Study Session 1

In study session 1, you have learnt that:

1. This Study focused on an examination of the concept of knowledge.
2. It examined the traditional account of knowledge in terms of:
 - Belief
 - Truth
 - Justification
3. You also identified experience and reason as two important sources of knowledge namely:
 - a. Empirical or Posteriori knowledge
 - b. Priori or Rationalism knowledge

Self-Assessment Questions (SAQs) for Study Session 1

Now that you have completed this study session, you can assess how well you have achieved its Learning outcomes by answering the following questions. Write your answers in your study Diary and discuss them with your Tutor at the next study Support Meeting. You can check your answers with the Notes on the Self-Assessment questions at the end of this Module.

SAQ 1.1 (Testing Learning outcomes 1.1)

1.1 Define Knowledge

SAQ 1.2 (Testing Learning outcomes 1.2)

- 1.2 Highlight the Components of knowledge
- b. What is the problem raised by Gettier about the traditional conception of knowledge?
- c. Examine any two ways the problem raised by Gettier can be addressed.

SAQ 1.3 (Testing Learning outcomes 1.3)

1.3 Discuss the Basic sources and Types of knowledge

PHI 401: Knowledge and Development

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Study Session 2: Nature of Development

Introduction

In this Study Session, you shall examine the idea of development in order to clarify what precisely it connotes. It begins with a general account of what development is at the level of society before proceeding to discuss some of the key dimensions of development. These include the spiritual/moral, technological, cultural, economic and political dimensions of development.

Learning Outcomes

At the end of this Study Session, you should be able to:

- 2.1 Define development
- 2.2 Explain the relationship between the various dimensions of development.

2.1 Development

The notion of development connotes growth, advancement, transformation or transition from a less desirable state to a more desirable one. It suggests that an object, individual or society has gone through a form of transformation, which makes its existing condition better than the previous one.

Box 2.1: Definition of Development

Development can be defined as the systematic use of scientific and technical knowledge to meet specific objectives or requirements i.e. an extension of the theoretical or practical aspects of a concept, design, discovery, or invention.

It can also be defined as the process of economic and social transformation that is based on complex cultural and environmental factors and their interactions.

Essentially, development within the context of society is about positive change that is purposefully towards profitable social goals that would benefit all in society. It is usually a gradual process of improvement from one stage to another.



Figure 2.1: Images of Development
Source: SchulPortals Inc. ©

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Within the context of society, the term 'development' is employed to describe changes in any of the various sectors of society, be it the political, spiritual, cultural, moral, technological or economic.

2.1.1 Ideas of Development

The following can be affirmed about development in society:

1. Development with specific reference to social change is a continuous process in society, and it is in this sense that society is understood to be dynamic.
2. Development in society connotes advancement through a constant and purposeful design and desire of humans to improve. It is the continuous movement forward of the human family towards perfect fulfilment. This suggests that development does not occur accidentally or through a self-generated process, but is normally intentionally initiated by humans.

It is for this reason that development is said to be forward looking and self-fulfilling. Besides, true development is a movement towards a good and sustainable society, that is, a society characterized by an adequate supply of the basic necessities of life.

3. On the basis of the above submission that development is a dynamic, purposeful, progressive process of change, we may reasonably argue that there is no society in the world that is completely developed or self-sufficient, or without areas where development is needed.

True development in society must be all embracing and impact on every domain of social existence, that is, the political, economic, technological, cultural and moral spheres of life. However, we should note that the notion of development that prevailed between the 1950s and 1960s focused on the technological and economic aspects of development, and thus reduced the process to what is widely known as modernization or westernization.

This idea of development is quite narrow and misleading. Development is more than economic growth. Rather, it is a multi-dimensional process involving positive changes in social structures, attitudes, and institutions in ways that would facilitate an improved standard of living.

- The process of economic and social transformation that is based on complex cultural and environmental factors and their interactions is known as _____ ?
 - a) Knowledge
 - b) Science
 - c) Technology
 - d) Development
- d) Development

2.2 Dimensions of Development

You shall now briefly examine some of the major dimensions of development:

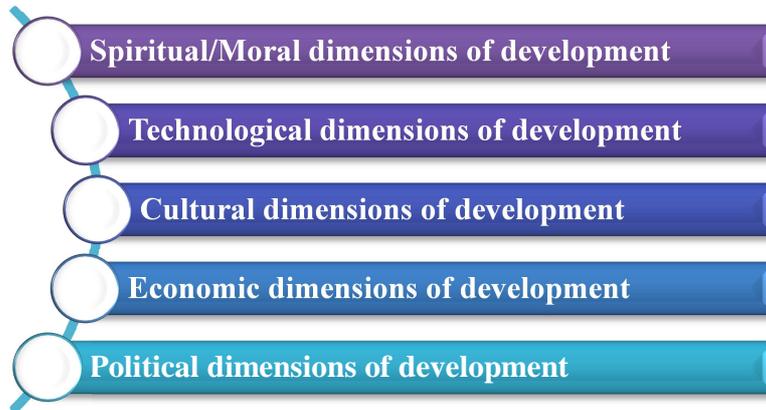


Figure 1.3: Dimensions of Development

Source: SchulPortals Inc. ©

1. Spiritual/Moral Dimension of Development

The Judaeo-Christian conception of human nature is tripartite, conceiving the human person as consisting of the body, the mind and the spirit. This idea of the human person is also found in many philosophical traditions dating back to the pre-Socratic era. That humans have a body is not controversial in any way, but philosophers have always grappled with issues relating to the existence and nature of the human mind and spirit.

While there is less controversy over the existence of the mind, there is a lot of disagreement over its actual nature and relationship with the body. Of the three components of the human person, the question of existence of the spirit appears the most problematic. A reason for this is that it is conceived to be immaterial and unverifiable in empirical terms. Perhaps this is the primary reason why many people prefer not to get embroiled in any debate on the existence and nature of the human spirit.

Be that as it may, religion and morality are founded on the premise that humans have a spiritual component by virtue of which they are essentially connected, not just with the divine, but also with one another. It is also by virtue of this spiritual component that humans are morally conscious.

For humans to evolve a mind-set or mental disposition that will enable them to transcend their raw human instincts of selfishness, greed and lust, and evolve appropriate moral virtues that would enhance social trust and cooperation that are requisite for development in society, more attention should be paid to their spirituality. Conversely, less emphasis should be laid on the material aspect of existence.

The spirituality we are considering here should not be interpreted as mere mystical feelings, piety or devotion. Rather, it consists in the growing awareness of and respect for the essential

PHI 401: Knowledge and Development

interconnectedness and interdependence between all humans as well as the intricate connection between humanity and the divine.

This spirituality sees reality and everything in existence as essentially interdependent and interconnected such that no part can truly develop except other parts also enjoy some measure of development. It is required to overcome moral vices of selfishness, greed, abuse of power, crude materialism, corruption and other social ills that impinge upon the prospects of development in many societies.

From the above, it should be clear that human spirituality underlies morality, which in turn helps to define what is good and what is bad in relation to human decisions, actions and character. It enables us to assess the impact of our actions on others and on the environment. Indeed, the prospects of development in society depend significantly on the moral disposition of its members.

It requires the cultivation of a rational outlook to life and the promotion of human values so that we can make sense of our experiences and cultivate the right kind of attitudes to fellow humans, social institutions and society at large that would facilitate the process of development in society.

No doubt, for society to develop in a sustainable manner, there must be a correlation between the level of control human beings have achieved over the physical world and the mastery of the human world, that is human society itself. Unfortunately, while humans have achieved an impressive level of control over the physical world, as is evident in the great achievements recorded via science and technology, we have not achieved the same level of success in terms of human morality and spirituality. Many people are still slaves to basic instincts, personal desires and ambitions. This impede the readiness of people or groups of people to actually cooperate with one another, undertake requisite actions and make the necessary sacrifices for society to actually develop. For example, the dearth of such moral values as honesty and probity in managing public affairs and assets, the disposition towards unlawful acquisition, falsehood, hatred, envy, jealousy, lust, and other moral vices underlie much of the developmental problems confronting many countries in Africa.

Thus, for any society to develop, its members must first cultivate appropriate moral values that would facilitate social cooperation, based on trust, that is requisite for the available natural, scientific and technological, economic and cultural resources to be effectively harnessed towards social development. Such moral values include honesty, sense of brotherliness, dedication to duty, commitment to human well being, respect for fundamental human rights, and equity. We must note, and sadly too, that this all important dimension of development is grossly neglected in many developing countries, with at best only lip service paid to it.

2. Technological Dimension of Development

The word, technology, is derived from the Greek word “*technologia*”, which embodies the terms *techne*, meaning craft or an art, and “*logia*”, meaning study or an area of study. Thus, technology means a study of the science of crafting, with crafting understood as a specific form of knowledge of doing something. Technology, thus, consists in the human use of the knowledge of

PHI 401: Knowledge and Development

tools and crafts to solve existential problems, meet basic human needs, and perhaps put the environment firmly under human control.

Technology may also be described as a process through which humans design tools and modern machines to improve his capacity for production and adaptation to the environment. It is both an expression and product of the human efforts to cope with his physical and social environments. Since the industrial revolution in the 17th century in Europe, technology has brought immense benefits to human society and enhanced the quality of life in many ways. Indeed, it is the means by which human society has been radically transformed, with people from very distant geographical locations brought closer by means of technological advancement in communication. This, no doubt, has enhanced development in the areas of economics, politics, and entertainment among others.

Technology has also empowered humans to have control over the environment in ways that have enhanced human well-being. For instance, food production and distribution has been greatly improved through the production and use of industrial tractors, fertilizers, chemicals for pest control and modern means of transportation.

In addition, technology facilitates the production of items that promotes human survival and wellbeing in ways that render them easily affordable and available to the majority of the people that need them. In the area of health, there is great improvement in the quality of medical services provided due to technological advancement.

Technology also has a negative impact on society. For instance, its critics are quick to point out that it has brought about an unequal exchange of products and has also become an instrument of power relation that empowers industrialised nations to exploit and dominate those that are not industrialised. In a sense, it is also seen to be responsible for such social problems as increase in crimes, unemployment, loss of spiritual values and environmental pollution.

However, the problems associated with technology appear to be more of a product of the human disposition to and the use to which it has been put. This has led to the realization that the pursuit of technological advancement without sufficient ethical considerations and moderation portends ill. For technology to effectively yield development in society, it must be human centred and also environmentally friendly.

Thus, technological innovation should not be pursued as an end in itself, but as a means of enhancing human wellbeing. Neither should it be embarked upon purely for its economic utility, in conformity with the logic of profit or economic expansion without end, without considering its impact on the wellbeing of the entire human community and not just some parts. It should also not be pursued with the aim of acquiring or maintaining military power and domination.

Rather, technology should always be geared towards the improvement of the quality of human life in ways that would facilitate peace and justice.

PHI 401: Knowledge and Development

3. Cultural Dimension of Development

Culture has been defined differently by various scholars. Perhaps this is due to the complex and heterogeneous nature of culture as an all-embracing phenomenon covering all spheres of human life in all societies.

The term, culture, derives its meaning from the Latin word “Colore”, which means to care, nurse or cultivate. Thus, culture helps, on one hand, to develop, educate and integrate into individuals’ appropriate social values and, on the other hand, incorporate individuals into society as integral parts of the whole society.

In essence, culture is the sum total of the ways in which society preserves, identifies, organizes, sustains and express itself. In terms of value, culture is the totality of the values that society upholds, and by which its members identify themselves and are also identified by non-members.

Elements of culture include:

1. Language
2. History
3. Conceptions of rights and duties
4. Ritual ceremonies
5. Philosophy
6. World views
7. Religious beliefs and morality
8. Signs and symbols
9. How families, clans and society at large are structured
10. The legal system
11. Indigenous skills and technologies
12. System of education
13. Forms of leadership

From the above, culture may be rightly described as the totality of all that humans, by their freewill and competence, have created. It is a product of human activities, and a device developed by people over time in their efforts to cope with the vagaries of life, and is transmitted from generations to generations.

From the Marxist-Leninist perspective, culture is a specific attribute of society that reflects the level of historical development achieved by man and which is determined by his relationship with nature and society. Hence, culture is a social heritage that is transmitted from one generation to another.

From the anthropological perspective, culture is seen as a complex whole that includes knowledge, belief, arts, customs, morals, and other capabilities and habits acquired by people through their social interactions.

This broad conception of culture covers all aspects of human activities. It goes on to describe culture as the shared way of life of a people that includes their values, beliefs and norms transmitted within a given society from generation to generation. Culture thus becomes the by-

PHI 401: Knowledge and Development

product of the relationships between humans in society. It sets standards, rules or norms which people are expected to conform to in society.

From the above accounts of culture, it can be distilled that it has two basic components, the material and non-material. The material aspect of culture covers all the tangible products of human activities in society.

This would *include tools, weapons, buildings, clothes, works of arts, and any other item derived from human technological intervention*. The non-material aspect of culture refers to the non-perceptible but operative or influential human creations perceptible in the human minds that guide human society in the form of ideas.

These creations are abstract and include societal values, beliefs, norms, knowledge, religion, tradition, custom, music, myth and morality. They confer identity, define a people's uniqueness and world view, as well as serve a basis of unity.

With regards to the relationship between culture, especially traditional African culture, and development, there are two basic positions. First, there is the opinion that African culture constitutes a major obstacle to development in Africa. Within the context of African philosophy, this opinion is expressed by the crop of African philosophers known as the modernists.

They contend that for African societies to develop, much of the traditional African culture must be jettisoned in favour of Western logic and science. In their opinion, African culture is primitive and a major obstacle to development. Hence, for Africa to develop, its traditional ways, values and beliefs must accommodate innovative views and methods of doing things.

Given the above negative perception of traditional African culture, advocates of the position that culture has an indispensable role to play in the quest for development are confronted with the great challenge of justifying their position.

Known as the culturalists, these scholars affirm that culture is an essential part of development, and does not necessarily constitute a barrier to development, even when it needs to be transformed to accommodate good innovation and techniques required for development. Advocates of this view include Olusegun Oladipo, Hammed Miske and Kwame Gyekye. They all acknowledged the vital role of culture in development.

4. Economic Dimension of Development

The economic sector consists of the system and means of production, its factors or indices, and the various institutions for commerce and industrialization that can enhance material prosperity and efficient distribution of goods and services in society.

With this understanding, economic growth consists of the short or long term increase in capacity to supply diverse economic goods and services to members of society, and its increasing capacity to export the same through trading activities.

PHI 401: Knowledge and Development

There is the widespread position that economic development is the most important aspect of development that defines other components of development. It is measured in terms of the available means of production, the efficient management of human and environmental resources, available infrastructure, and the technological base that can engender the production of high quality goods and services.

Other factors taken into consideration for the measurement of economic development include market size, investment capacity, and available means of transportation and information technology. Essentially, economic growth may be understood to connote the capacity of an economy to transit from a condition that is more or less static to one that records an annual increase in its gross national product.

From another perspective, economic development is a process of transformation from an economy that is essentially traditional and rural to one that is predominantly urban, industrial and service-providing.

It requires the efficient distribution or allocation of the means or resources required for production, that is, land, labour, capital, and entrepreneurship, in ways that enhance the level of economic activities, income distribution pattern, and fiscal solvency. It consists in progressive changes in the socio-economic structures of a country, and an increase in industrialization, trade, banking, construction, and social services.

It is measured in terms of social well-being and GDP as well as in terms of education, access to health, social justice, good governance, and so on¹².

In contemporary times, economic growth is understood to translate to social development when it results in a widespread improvement in quality of life. This is measurable in terms of access to good employment, social security and diverse social amenities such as good roads, electricity, water, and health facilities. Other indices with which social development is measured include good governance, social justice and qualitative and assessable system of education.

5. Political Dimension of Development

For society to develop there must be in place an adequate political order that translates into an efficient system of governance. However, the idea of governance is quite complex. It can refer to the activities of a government or the process through which society or an organisation is administered, managed or controlled.

In this regard, governance may be described as the complex of the legislative, executive and judicial activities of a government. With specific reference to society, governance involves the exercise of political power in the management of social affairs, the process of decision-making and implementation.

Etymologically, the term “governance” means to steer, to guide, or to direct. Historically, the term is believed to have been first used by Plato in his critique of the Athenian democracy and leadership patterns in the ancient Greek society.

PHI 401: Knowledge and Development

When we say of a system of governance that it is efficient, it simply means that it is able to achieve the ends expected of a government or that it possesses a number of inherent qualities.

For example, an efficient political system would be one that adequately protects and promotes the rights of citizens, provides for the general welfare and interests of members of society, enhances social harmony through the maintenance of law and order, and properly manages and distributes available resources in society in ways that would stimulate economic and social development.

The last statement above brings to fore the political dimension of development which consists in the efficient management and distribution of available natural, human and social resources in order to facilitate social development.

Indeed, the political institutions and structures in a society determine its prospects of development. It is for this reason that inept political structures and bad political leadership have often been identified as the bane of development in many developing societies, especially in Africa.

The prevailing opinion now is that democracy offers the best system of governance that would guarantee social development as well as all the other benefits that are expected to be available within the context of an efficient political system.

The democratic institution has gained such a wide acceptance today that for developing countries to receive international aid, they are required by international financial organizations, such as the World Bank and the IMF, to democratise. Hence, we have a widespread attempt to democratise political structures and institutions in virtually all the countries in Africa and other parts of the world.

Democracy, which has gained global prominence as the best form of government that could guarantee development, may be simply described as a system of government in which the authority to exercise power derives from the will of the people. The most popular definition of democracy is credited to President Lincoln of America, who defined the political system as government of the people, by the people and for the people.

This implies three core characteristics of democracy: that democracy is the government of the people means not only that political power is exercised over people but also that it derives its legitimacy from their consent and commitment; its being a government by the people points to the fact that people participate extensively in governmental processes: the 'for the people' clause indicates that democracy seeks to realize the common good of people as well as protect their individual rights. It emphasizes the responsiveness of a democratic government to the rights, needs and interests of all citizens without exception.

In essence, Lincoln's definition refers to three key principles that are believed to be central to democracy: the principles of safeguarding individual rights (especially freedom and equality rights), popular participation in government, and the pursuit of common interests. However, much controversy exists on how to interpret these principles and their order of priority when they

PHI 401: Knowledge and Development

conflict. Be that as it may, we should note that the aspect of the idea of democracy that refers to the pursuit of the common good of people shows, in very clear terms, that development, which is about the enhancement of the quality of life for the generality of people in society, is incorporated into the very idea of democracy.

Summary of Study Session 2

In study session 2, you have learnt that:

1. Development can be defined as the systematic use of scientific and technical knowledge to meet specific objectives or requirements i.e. an extension of the theoretical or practical aspects of a concept, design, discovery, or invention.
2. The following can be affirmed about development in society:
 - a. Development with specific reference to social change is a continuous process in society, and it is in this sense that society is understood to be dynamic.
 - b. Development in society connotes advancement through a constant and purposeful design and desire of humans to improve. It is the continuous movement forward of the human family towards perfect fulfilment. This suggests that development does not occur
 - c. On the basis of the above submission that development is a dynamic, purposeful, progressive process of change, we may reasonably argue that that there is no society in the world that is completely developed or self-sufficient, or without areas where development is needed.
3. Some of the major dimensions of development includes:
 - Spiritual/Moral dimensions of development
 - Technological dimensions of development
 - Cultural dimensions of development
 - Economic dimensions of development
 - Political dimensions of development

PHI 401: Knowledge and Development

Self-Assessment Questions (SAQs) for Study Session 2

Now that you have completed this study session, you can assess how well you have achieved its Learning outcomes by answering the following questions. Write your answers in your study Diary and discuss them with your Tutor at the next study Support Meeting. You can check your answers with the Notes on the Self-Assessment questions at the end of this Module.

SAQ 2.1 (Testing Learning outcomes 2.1)

2.1 Define development

- ii. Give a detailed account of what the idea of development within the context of society entails.

SAQ 2.2 (Testing Learning outcomes 2.2)

2.2 Critically discuss the claim that development is a dynamic process.

SAQ 2.3 (Testing Learning outcomes 2.3)

2.3 Carefully examine the relationship between the various dimensions of development.

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Study Session 3: Theories of Development

Introduction

In this study session, we shall examine the prominent theories of development. These include the modernization theory, the dependency theory, and the world system approach to development, the state theory of development and the human development theory. We need to understand that theories allow us to comprehend the world coherently and act upon it in a realistic way.

Hence, a theory may be defined as a set of interrelated statements that provides an explanation for a class of phenomenon or events, and helps us to make sense of our experiences of the world. It also serves as a guide for action because theories help us to predict and control, as much as possible, our world. A theory would achieve at least three objectives:

First, it allows us to organise our observations of the world in a logical and systematic manner that would help us derive appropriate meaning from the world. Second, it allows us to see relationships among facts, recognise the implications and make the inferences that would not be evident in isolated pieces of information. Third, a theory would stimulate inquiry and inspire further research that would be useful to verify, falsify or modify the existing theory.

Learning Outcomes

The primary objective of this Study session is to comprehend the various ways development has been conceptualised and determine which of these is the most plausible. At the end of this Study Session, you should be able to:

- 3.1 Explain the main claims of the theories of development discussed
- 3.2 Highlight the strengths and weaknesses of each of these theories
- 3.3 Which of the theories is more plausible

3.1 Theories of Development

Theories of Development are a conglomeration or a collective vision of theories about how desirable change in society is best achieved. Such theories draw on a variety of social science disciplines and approaches. In this study session, multiple theories are discussed, as are recent developments with regard to these theories.

Modernisation Theory of Development

The modernisation theory is employed to explain the process of development in society. It examines the internal factors and forces that facilitated development in the advanced Western countries, believing that by replicating these factors in traditional, less developed countries, such

PHI 401: Knowledge and Development

countries would also develop in a similar way. Hence, the theory tries to identify the social factors that facilitated development in more developed countries.

Proponents of this theory include *Marquis de Condorcet*, *W.W. Rostow* and *Emile Durkheim*. Modernisation theorists of development emphasise the economic aspect of development, hence, they usually define development in society in terms of economic growth, with this measured in terms of increase in per capital income, and attainment of a standard of living that is equivalent to what entails in the industrialised countries.

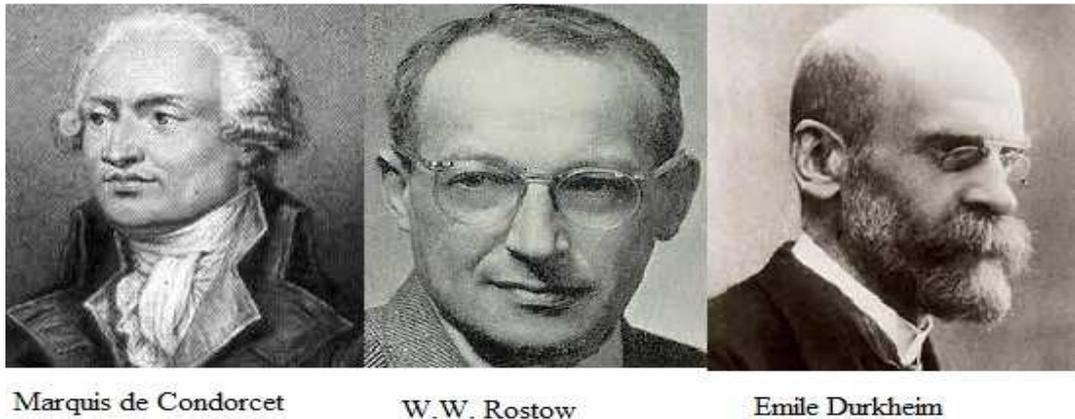


Figure 3.1: Images of Theory Developer

Source: <http://sumananthromaterials.blogspot.com/2010/06/emile-durkheim.html>

A basic presupposition of the modernization theorists is that when there is an increase in investment of capital in a society, its productive capacity would also increase, leading to the production of goods and services in the quantity that would, in the final analysis, improve the standard of human life.

With the above understanding, development, from the perspective of the modernization theorists, may be described as the transition of society from a relatively rural way of life that is based on animate power, limited technology, relatively undifferentiated social institutions and structures, traditional value systems to one that is urban and established on inanimate sources of power, science and technology, and highly differentiated social institutions and structures.

An inference that could be easily drawn from the above is that a fundamental cause of underdevelopment in society would be the failure to effectively modernise or industrialise its social and production systems and structures.

Therefore, it is argued by modernisation theorists that for any society to develop, it must follow the Western stages of development involving the transition from an agrarian to an industrialized society on the basis of core capitalist principles as was the case with the industrial revolution in Europe in the 18th century.

PHI 401: Knowledge and Development

This suggests that modernisation theorists, in a fundamental sense, define development in terms of becoming more like the West as rapidly as possible. Thus, development, going by the modernisation thesis, is definable in terms of westernization.

The Dependency Theory

The dependency approach emerged as a reaction to and a critique of the modernisation theory. Taking a socialist dimension, it was first developed in Latin America, but later became accepted as proffering an adequate explanation for underdevelopment in countries in other parts of the world that share similar experiences with those of Latin America. Advocates of this theory include *Celso Fortado*, *Theotonio Dos Santos*, *Samir Amin* and *Immanuel Wallerstein*.



Figure 3.2: Images of Theory Developer

Source: <http://www.agenceglobal.com/index.php?authorPage=authorDetails&aid=245>

The central question addressed by the dependency theory is: why are Latin American countries decreasing in economic growth while advanced countries are getting richer? It maintains that this is so because the economic arrangement of the world through global trade and its affiliated international division of labour and internationalization of capitalism has created a situation of exploitation that keeps the developing countries perpetually underdeveloped.

Developing countries are claimed to be conditioned to supply the industrialised nations with cheap labour and raw materials, thereby making the economy of the former a perpetually dependent economy.

The condition of dependency may be described as an historical condition which structures global economy such that it favours some countries to the detriment of others and limits the development possibilities of the subordinate economies. In this regard, the economy of certain countries is conditioned by the development and expansion of the economy of other countries to which the former is subjugated.

For dependency theorists, underdevelopment becomes the consequence of capitalism in the sense that through the institution of such powerful means of domination as technology,

PHI 401: Knowledge and Development

the developed countries of the world keep the developing countries perpetually underdeveloped.

Hence, underdevelopment is construed as a deliberate creation of the West, resulting in the disparity between the rich and the poor, manifesting in the social and economic problem of inequality.

The State Theory of Development

This theory affirms that the internal socio-political condition of a country determines its processes and prospects of development. It argues that a state with a high level of corruption and inefficient system of governance would most probably suffer in terms of industrialisation and development.

A reason for this is that the inefficient system of governance and prevalence of corruption would impede the state's economic productivity and growth. It would result in an outflow of capital and other vital resource for production to other countries with more stable social conditions that provide a more investment friendly environment.

The theory recognises the important role the state, and its internal politics, plays in the process of development. It is in this regard that the state theory claims that each country has its own unique pathway to development, and for a country to develop, it needs to be stable both internally and externally.

In addition, it affirms that for a country to develop, the state must not exercise power arbitrarily in the economic arena and should facilitate the emergence of a capitalist economy. Perhaps, this is one of the reasons for the gradual withdrawal of the state from the economic domain in many developing countries through various structural adjustment programmes.

World System Approach

The World system approach, developed by Immanuel Wallerstein and supported by Giovanni Arrighi, and other scholars, has its theoretical foundation in Marxism but has a multi-disciplinary character.

PHI 401: Knowledge and Development



Figure 3.3: Images of Theory Developer

Source: <http://archive.gazette.jhu.edu/2009/07/06/giovanni-arrighi-71-brought-bold-perspective-to-social-theory/>

It transcends the bimodal system of the exploitative economic relationship existing between the core (rich) and the peripheral (poor) nations offered by the dependency theorists. Rather, this theory contends that the world, from both historical and economic perspectives, can be divided into three forms of nations based on existing forms of economic relationship: the core, semi-periphery and the periphery nations.

While the core countries focus on high skill, technologically sophisticated and capital intensive form of production, others focus on low skill, labour intensive production and extraction of raw materials and natural resources.

Some of the salient features of core nations include:

- Strong
- Rich and diversified economy
- Strong and efficient system of governance
- Complex and strong state institutions that effectively manages the economy
- Internally and externally

The distinctive features of the periphery countries include:

- Relatively weak governments
- Minimal or no economic diversification
- Weak social institutions with little tax base to facilitate infrastructural development.

Other attributes include raw materials exportation, minimal industrialisation of production, tendency to target foreign investments by multinationals that are interested

PHI 401: Knowledge and Development

in taking advantage of available cheap labour. We also have a high proportion of poor and illiterate people, high level of social inequality as well as a high level of influence from multinationals and core countries. Virtually all countries in Africa fall under this category.

The semi-periphery countries are midway between the core and the periphery countries. They are usually countries transiting towards industrialisation and a truly diversified economy. Examples of such countries are India, Brazil, South Africa, and perhaps China.

The world system approach is an important departure from the modernisation and dependency theories of development in the following ways:

1. It rejects the focus on the state as the primary unit of analysis in the development discourse. It affirms that it is the world system that should be the primary unit of social analysis in the effort to theorise development in modern society.
2. It transcends the assumption underlying other theories of development that there is a single path to development which all societies must thread.
3. It recognises the transnational or global structures and forces that determine development at the local and national levels.

According to the world system theory, the world system is not fixed but dynamic, allowing for the status of specific countries to change from the core, semi-periphery or the periphery over time depending on such factors as technological advancement.

It also affirms that core countries do not just exploit both the semi periphery and the periphery nations economically, but exploits workers in all the zones of the capitalist global economy. This is so because the capitalist system is based on an inter-regional and transnational division of labour.

By this structure, the world system redistributes surplus value from the periphery, semi-periphery to the core nations through activities in the market place. It is also by this redistribution that the core countries, which is the more developed, industrialised part of the world, exploit and dominate both the semi-periphery and the periphery countries that are the less developed and poorer parts of the world that focus more on the production and exportation of raw materials.

Core countries are said to dominate other periphery and semi-periphery countries in four main areas: productivity dominance, by producing items of better quality at cheaper prices; trade dominance, by having a favourable balance of trade because other periphery and semi-periphery nations buy more from the core nations than the core from the others.

This inevitably leads to financial dominance since it means that more money flows into the core countries than goes out from them. All the three areas of dominance may result in the fourth, which is military dominance.

PHI 401: Knowledge and Development

The four perspectives on development discussed thus far; modernization theory, dependency theory, state theory and the world system approach, focus primarily on the economy as the most vital social sector that determines development in society. They ignore the fact that development should be all embracing and holistic.

An adequate theory of development must pay attention to other dimensions of development such as the political, ethical and cultural foundations of development. Besides, development must be environmentally friendly and human-oriented. It is only when all these factors are properly integrated in our understanding of and quest for development in society that we can have what is now referred to as sustainable social development.

This is development that is self-generating and sustainable by being capable of meeting the needs of the present generation without compromising the capacity of future generations to meet their own needs.

The above considerations led to the construction of the human development theory and the idea of sustainable development. Both give adequate considerations to other dimensions of development apart from the economic aspect of development. They also appreciate that the ultimate and basic purpose of economic production does not consist primarily in the increased capacity to produce goods or increase profit or prestige.

Rather, it should be directed to the service of the human person in his or her totality, taking into account essential human material needs and the basic requirements for the intellectual, moral spiritual and religious wellbeing of all humans.

Human Development Theory

Human development theory focuses on how the various social and natural resources, especially social and instructional capitals could be employed to enhance the total value of human capital, which can be interpreted in simple terms as the general well-being of all peoples.

A chief proponent of this theory is *Amartya Sen*, who focused on human capability. He interpreted development to connote the enhancement of human capabilities, that is, what people can be and what they can do. According to Sen, it is these capabilities and not necessarily the incomes, goods and services they can access that determine their level of development or wellbeing. Indeed, it is this conception of development that underlies the Human Development

PHI 401: Knowledge and Development

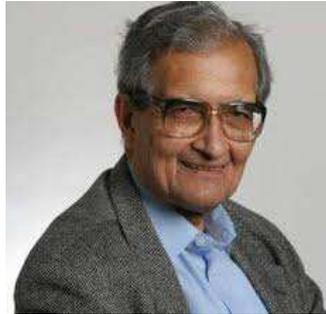


Figure 3.4: Amartya Sen

Source: <http://keithburgess-jackson.typepad.com/blog/2013/07/amartya-sen-on-capital-punishment.html>

Index presented by UNDP. It gives much premium to such factors as freedom of choice, individual heterogeneity and the multi-dimensional nature of human welfare.

However, advocates of the human development approach do not totally neglect the economic dimension of development. Rather, this is examined to see how economic institutions, structures and systems affect human capabilities, positively or negatively. These are assessed on the basis of the following:

1. The real freedoms that people enjoy. This could be political or economic freedom. Other issues discussed in this regard include social opportunities and social security.
2. Individual's differences in their ability to transform resources into valuable assets.
3. Available activities that generate happiness and a sense of fulfilment.
4. The proper balancing of available material and non-material factors for human wellbeing.
5. The fair distribution of opportunities in society.

Real freedoms, according to proponents of the human development theory include ability to live to old age, engage in worthwhile economic transactions and participate in political activities.

They emphasise both the actual ability to do certain things or function in certain ways and having certain capabilities understood as a practical choice to function in any important or significant way they wish. In this regard, factors that impede freedoms or deprive one of social capabilities include ignorance, government tyranny or oppression, poverty or poor economic opportunities, false consciousness, systemic social deprivation, intolerance and neglect of public facilities. These are described by Sen as un freedoms.

Another proponent of the human development theory, Martha Nussbaum identified ten principal capabilities that should be used to measure the level of development in society



Figure 3.5: Martha Nussbaum

Source: <http://cas.uchicago.edu/workshops/practicalphilosophy/2010/06/01/46-martha-nussbaum/>

3.2 Measurement for the Level of Development in the Society

1. Not dying prematurely and being able to live to the end of a human life of normal duration without it being denigrated to a level that is not worth living.
2. Being able to have good general and reproductive health in addition to being able to be nourished adequately and have suitable shelter.
3. Having the capacity to move freely in society and being secured against all forms of assault including sexual assault and domestic violence. People should also have opportunities for sexual satisfaction and choice in reproductive issues.
4. Being able to use one's senses to think, reason and imagine; being able to freely express oneself with regards to issues of religion, politics, music, etc.
5. Being able to cultivate and maintain attachments to things and people outside oneself. This includes loving and caring for those who love and care for us, grieve their absence, and express gratitude, justified anger and other emotional states such as fear and anxiety.
6. Having the ability to conceive of the good and being able to engage in critical reflections and plans about the direction of one's life.
7. Being able to live with others and engage in diverse forms of acceptable social interactions with them. This includes having the social foundation for self-respect and non-humiliation irrespective of race, sex, sexual orientation, ethnic affiliation, religion, or nation.
8. Having the ability to live with and express concern for other beings in nature.
9. Being able to enjoy leisure and diverse recreational activities.
10. Being able to exert meaningful control over one's social and natural environment. These include holding property, working or exercising practical reason as any other human person.

Summary of Study Session 3

In study session 3, you have learnt that:

1. The various theories of development:
 - The modernization theory
 - The dependency theory,
 - The world system approach to development
 - The state theory of development
 - The human development theory

2. The theory that appears to be now dominant in contemporary society is the human development theory. However, each of these theories have some measure of plausibility along with some peculiar defects.

Self-Assessment Questions (SAQs) for Study Session 3

Now that you have completed this study session, you can assess how well you have achieved its Learning outcomes by answering the following questions. Write your answers in your study Diary and discuss them with your Tutor at the next study Support Meeting. You can check your answers with the Notes on the Self-Assessment questions at the end of this Module.

SAQ 3.1 (Testing Learning outcomes 3.1)

- 3.1 What is the essential difference between the dependency theory of development and the world system approach?

SAQ 3.2 (Testing Learning outcomes 3.2)

- 3.2 Outline the core ideas of the human development theory.

SAQ 3.3 (Testing Learning outcomes 3.3)

- 3.3 Itemise any five of the ten principal capabilities which, according to Naussbaum, should be used to measure the level of development in society.

PHI 401: Knowledge and Development

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Study Session 4: Social Development

Introduction

Development, broadly speaking, has several dimensions. These include the economic, political, cultural, scientific, technological and spiritual dimensions. All of these should culminate in social development. The lecture examines the nature of social development and endeavours to establish its relationship with other dimensions of development.

Learning Outcomes

At the end of this Study Session, you should be able to:

- 4.1 Explain the idea of Social Development.
- 4.2 Highlight the means of measuring Social Development.
- 4.3 Outline the Millennium Development Goals (MDGs) and their relationship with social development.

4.1 The Idea of Social Development

One of the major objectives of any nation's quest for industrialisation, through advancement in science and technology, is to promote economic growth which is expected to trigger rapid social development.

Box 4.1 Definition of Social Development

Social Development can be defined as the way society and culture change positively in response to various developments in the areas of science, technology, politics and economics.

Generally speaking, the term, Social development, which is a dynamic process, is achieved by organizing human energies and activities, as well as all the available natural and social resources to achieve a better standard of life for all in society. Hence, social development becomes the outcome of the efficient and responsible exploitation of available natural, cultural, social, intellectual, economic and technological resources by humans.

There is a general assumption that social development would be facilitated by the acquisition of scientific knowledge and technical know-how when these result in material and economic benefits for all in society through the production of required goods and services, and adequate infrastructural facilities, such as schools, good roads, houses, dams, good health system, and reliable information technology and the establishment of industries.

At the level of nations, social development is a function of how each nation is able to transform its social structures or institutions in a manner that enables it attain its development agenda or objective, which, in the final analysis, should be about how to enhance the quality of life enjoyed by all in society.

PHI 401: Knowledge and Development

Going by UNDP's development index, social development, understood as the enhancement of the overall standard of living, is measurable in terms of:

1. The provision of good health care system;
2. Protection of basic human rights and freedoms;
3. Educational advancement;
4. Increase in individual income, and fair distribution of income;
5. Mental well-being of citizens;
6. Empowerment of individuals;
7. Improved social relations;
8. Improved work condition;
9. Provision of recreational facilities and leisure and improved environmental condition in general.

■ The way society and culture change positively in response to various developments in the areas of science, technology, politics and economics is referred to as?

- a) Social Development
 - b) Development
 - c) Knowledge
 - d) Theories of Development
- a) Social Development

Prior to the emphasis on social development, development was primarily measured in economic terms. It was assumed that economic growth and material surplus would automatically translate into human happiness and well-being, or the good life.

However, it is now evident that while society may record economic growth, its members may remain unfulfilled and frustrated emotionally, culturally, socially and morally. A society may be wealthy and industrialized, yet remains socially and morally underdeveloped.

The inadequacy of the economic conception of development led to the prominence of the idea of social development, with its emphasis on the attainment of a better or more humane life. As such, social development is human centred and aims at the enhancement of human self-esteem, human freedom and overall economic, political, moral and spiritual wellbeing.

Indeed, the target of social development should be to provide basic human needs, such as good shelter, clothing, food, education and unemployment for the generality of people in society. By implication, social development must be a struggle against such social ills as poverty, inequality, injustice, unemployment and diseases.

Hence, to be socially developed implies having the capacity to meet or provide for the basic needs of life for the people in society so as to make life comfortable and happy for them.

PHI 401: Knowledge and Development

Apart from the above, other social indicators for measuring social development in every nation include:



Figure 4.1: Social Indicators for Measuring Social Development in Every Nation

Source: SchulPortals Inc. ©

- **Life expectancy:** This has to do with longevity of life. It is generally accepted in contemporary times that the longer the life span is in a society, the more developed it is. For instance, the fact that the average life expectancy in the United Kingdom is 71 years while in Uganda it is 41 years is taken as an indication that United Kingdom is more socially developed than Uganda.
- **Birth rate:** This is measured by the number of babies born within a year in a country per 1000 people. It is generally accepted that the higher the birth rate is in a nation, the less developed it would be. This is because the population would more probably be more than the available resources and infrastructures.
- **Infant mortality rate:** This rate is measured with reference to the number of children that die before they reached age one for every thousand birth per year and it is taken as another acceptable social development indicator or evaluator. In the United Kingdom, about 6 out of 1000 children die before age one while in many parts of Africa; it is more than 200 deaths per 1000.
- **Literary level:** The proportion of the population of a country that is literate, that is, that can read and write, is also taken as an important factor for measuring its level of social development. In U.K., the figure is 99% while in many parts of Africa it is less than 30 percent.

4.2 Millennium Development Goals

With specific reference to Africa, the quest for social development has been embarked upon at three levels:

PHI 401: Knowledge and Development

1. The state level where governments in conjunction with relevant stakeholders, and usually in line with relevant global policies, implement various forms of Structural Adjustment Programmes (SAPs);
2. The regional and continental levels, where countries cooperate in the bid to engender development (for example, the NEPAD initiative);
3. The global level where such organisations as the United Nations design and implement policies meant to facilitate sustainable social development in developing countries with particular emphasis on Africa, Asia and Latin-America. Indeed, it is the policies and initiatives taken at the global level that, most often, give direction and impetus to what is done at the regional and state levels.

In 2000, the UN, in its continued effort to resolve the major problems that undermine human wellbeing, and ultimately record significant improvement in the level of social development in developing societies, formulated and got world leaders to adopt the Millennium Development Goals (MDGs) with 2015 as the target for their full realisation.

The eight MDGs, with 21 quantifiable targets, were designed to mitigate fundamental problems that impinge upon human wellbeing or the attainment of a good life in developing societies by tackling extreme poverty in its diverse manifestations.

They also provide a framework for the international community to cooperate to ensure that human development is inclusive in the sense that it reaches everyone everywhere in the world. The achievement of these goals is expected to reduce world poverty by half, with tens of millions of lives, that would otherwise have died, saved, and billions of people positioned to benefit from the global economy.

4.3 Millennium Development Goals (MDGs)

The achievement of these goals is expected to reduce world poverty by half, with tens of millions of lives, that would otherwise have died, saved, and billions of people positioned to benefit from the global economy.

The eight MDGs are listed and explained below:

PHI 401: Knowledge and Development

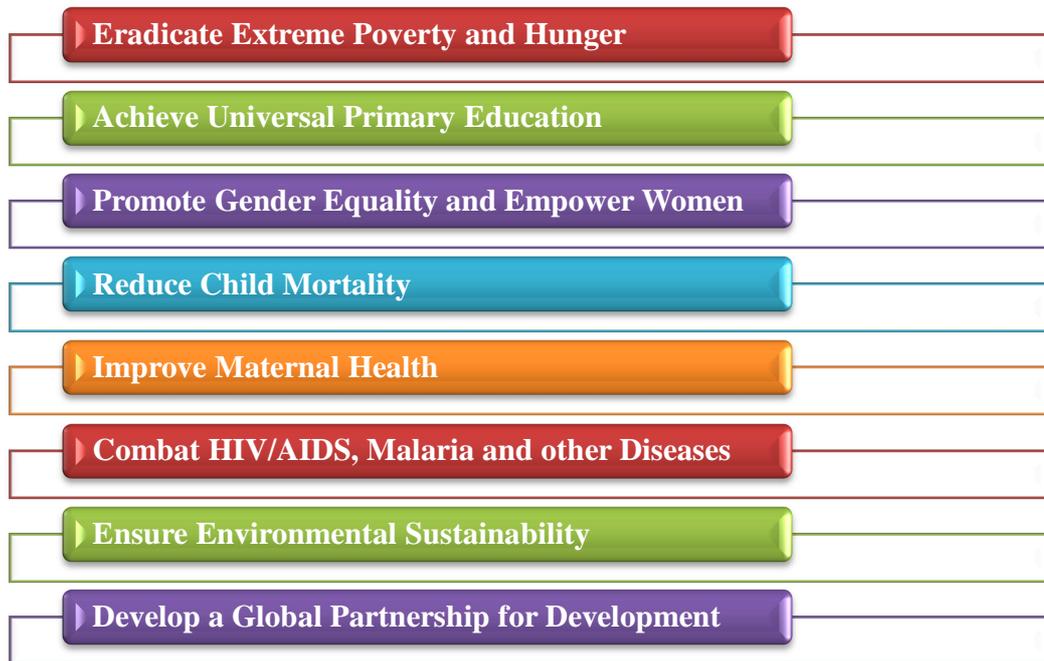


Figure 4.1: Eight Millennium Development Goals (MDGs)

Source: SchulPortals Inc. ©

1. **Eradicate Extreme Poverty and Hunger:** Halve the proportion of people living on less than a dollar a day and those who suffer from hunger.
2. **Achieve Universal Primary Education:** Ensure that all boys and girls complete primary school.
3. **Promote Gender Equality and Empower Women:** Eliminate gender disparities in primary and secondary education at all levels by 2015.
4. **Reduce Child Mortality:** Reduce by two-thirds the mortality rate among children under five.
5. **Improve Maternal Health:** Reduce by three-quarters the ratio of women dying in childbirth.
6. **Combat HIV/AIDS, Malaria and other Diseases:** Halt and begin to reverse the spread of HIV/AIDS and the incidence of malaria and other major diseases.
7. **Ensure Environmental Sustainability:** Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environment resources. By 2015,

PHI 401: Knowledge and Development

reduce by half the proportion of people without access to safe drinking water. By 2020, achieve significant improvement in the lives of at least 100 million slum dweller.

- 8. Develop a Global Partnership for Development:** Develop an open trading and financial system including a commitment to good governance, development and poverty reduction. Address the needs of the least developed countries, landlocked and small island states. Deal with developing countries' debt problems and provide more and better aid; develop decent and productive work for youth. With pharmaceutical companies, provide access to essential drugs. With the private sector, make new technologies available.

If the MDGs were listed in an order of priority, the fact that the second MDG relates to the education for all reflects the importance ascribed to the generation and dissemination of knowledge in the discourse on social development.

Unfortunately, with specific reference to Africa, south of the Sahara, one of the areas of the world in dire need of social development, there are obvious indications that the MDGs would remain unachieved at the expiration of the 2015 target.

4.3.1 Reasons for this Skepticism include:

1. The fact that the advantages of economic restructuring are hardly seen in this part of the continent in spite of the SAPs embarked upon.
2. The inability to attract the foreign investment required for development.
3. Unabated debt burden.
4. Unstable and unpredictable commodity prices in the midst of declining industry.
5. Undelivered commitments by international development agencies and organizations.
6. Failure of WTO negotiations to yield any concessions for Africa and developing countries vis-a-vis protectionist agricultural subsidies paid by EU and US governments to their farmers.
7. Low level of harnessing science and technology.
8. Conflict and political instability.
9. Climate change, which has affected agricultural productivity, contributed to resource scarcity and fuelled conflicts among diverse natural resource users in Africa's land.

Summary of Study Session 4

In study session 4, you have learnt that:

1. Social Development can be defined as the way society and culture change positively in response to various developments in the areas of science, technology, politics and economics.
2. The eight millennium development goals (MDGs) includes:
 - a) Eradicate Extreme Poverty and Hunger
 - b) Achieve Universal Primary Education
 - c) Promote Gender Equality and Empower Women
 - d) Reduce Child Mortality
 - e) Improve Maternal Health
 - f) Combat HIV/AIDS, Malaria and other Diseases
 - g) Ensure Environmental Sustainability
 - h) Develop a Global Partnership for Development

Self-Assessment Questions (SAQs) for Study Session 4

Now that you have completed this study session, you can assess how well you have achieved its Learning outcomes by answering the following questions. Write your answers in your study Diary and discuss them with your Tutor at the next study Support Meeting. You can check your answers with the Notes on the Self-Assessment questions at the end of this Module.

SAQ 4.1 (Testing Learning outcomes 4.1)

4.1 Explain the idea of Social Development.

SAQ 4.2 (Testing Learning outcomes 4.2)

4.2 Highlight the means of measuring Social Development.

SAQ 4.3 (Testing Learning outcomes 4.3)

4.3 Outline the Millennium Development Goals (MDGs) and their relationship with social development.

PHI 401: Knowledge and Development

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Study Session 5: Science, Technology and Social Development

Introduction

This lecture concentrates on an examination of the relationship between science and technology on one hand, and development, on the other hand. This is important given the prevalent idea in contemporary society that there can be no meaningful development in society without science and technology. Put differently, the general belief now is that for society to develop in any way, it must first develop scientifically and technologically.

Learning Outcomes

At the end of this Study Session, you should be able to:

- 5.1 Define Science
- 5.2 Explain the Nature of Technology
- 5.3 Discuss the prevalent perception today about the relationship among science, technology and development.

5.1 Science

Science, generally speaking, may be described as the form of knowledge that is most widely accepted as a prerequisite for development in society.

Box 5.1 Definition of Science

Science can be defined as any systematised or organised body of knowledge that has been critically tested, beyond reasonable doubt, and derived from the external world through experience, experimentation and generalisation.

In an older and closely related meaning, "science" also refers to a body of knowledge itself, of the type that can be rationally explained and reliably applied. A practitioner of science is known as a scientist.



PHI 401: Knowledge and Development

Figure 5.1: Science

Source: SchulPortals Inc. ©

In modern usage, "science" most often refers to a way of pursuing knowledge, not only the knowledge itself. It is also often restricted to those branches of study that seek to explain the phenomena of the material universe.

5.1.1 Characteristics of Science

Science has four basic characteristics as listed and explained below:

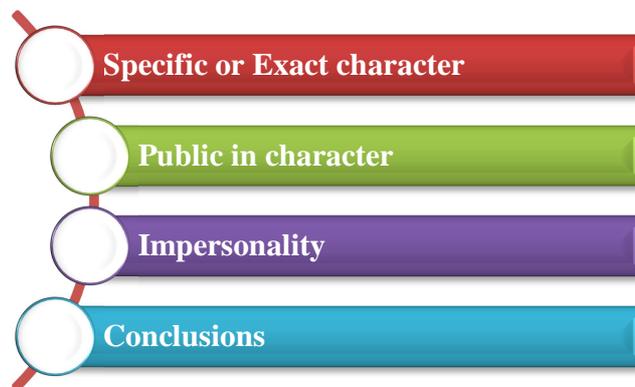


Figure 5.2: Four Basic Characteristics of Science

Source: SchulPortals Inc. ©

1. **Specific or Exact Character:** This implies that it deals with particular and observable entities or processes of the empirical world. Science is also specific in the sense that it provides us with information about the world as it actually is.
2. **Public in Character:** This means that its methods and procedures, findings and conclusions, and products, can be communicated and taught to the generality of people in society. The idea that science is public in character is also conveyed by saying that its claims are interpersonally verifiable and open to public scrutiny.
3. **Impersonality:** This suggests that it does not involve prejudices, idiosyncratic beliefs, value judgments or arbitrary preferences. Rather, decisions and choices are made, strictly on the basis of standard scientific procedures and methods.
4. **Conclusions:** which may be in the form of laws or theories, are based on hard empirical facts that we cannot be mistaken about.

With regards to the objectives of science, there is the perspective that science is pursued for the primary purpose of enhancing human understanding of the world. However, apart from this,

PHI 401: Knowledge and Development

science is construed as also having the objectives to predict and control the events of nature. These facilitate the various economic and technological benefits of science.

5.2 Nature of Technology

Science is categorised into pure, social and applied sciences. Pure sciences include such fields as physics, chemistry, biology, biochemistry, and microbiology. They all study natural entities and processes. Social sciences consist of such fields as economics, political science, sociology and psychology. Their objects of study include human behaviour and their social relationships. Another name for applied science is technology.

Box 5.2 Definition of Technology

Technology can be defined as any activity resulting in the procedures for creating and building things that would enhance the quality of life in terms of diet, reduction of diseases and illnesses, provision of qualitative education and adequate shelter among other things.

Essentially, technology strives to control nature in order to enhance human comfort and happiness. In a fundamental sense, technology is a problem solving enterprise that employs human knowledge to direct human activities in the quest to make life more meaningful.

There is the general understanding that modern technology could not have existed without science as its foundation. This is in the sense that it is the understanding of the natural environment that science provides that technology employs to create those items that are required to control nature for the ultimate benefit of humans.



Figure 5.3: Technology

Source: SchulPortals Inc. ©

It is in this regard that technology may be described as the *systematic utilisation of the resources and forces of nature that is facilitated by the knowledge of nature, provided by science, in order to enhance the quality of human life.*

5.3 Science, Technology and Development

PHI 401: Knowledge and Development

Today, development on one hand, and science and technology, understood as applied science, on the other hand, are seen to be inseparable. This is in the sense that the *level of development in society is directly proportional to their level of scientific and technological growth*. This position is known as the *technology-development thesis*.

It measures social development in terms of the acquisition of scientific knowledge and technical know-how believing that this would always yield associated material and economic benefits.

This is also called the technical conception of development and it implies a significant control over the natural and social environment, increase in agricultural production, improvement in the provision of essential services and social infrastructures like schools, roads, dams and the establishment of industries.

The technology-development thesis is corroborated by the observation that the more technologically advanced societies of Europe and North America are also the ones that have recorded significant levels of social development. Going by a UN report, as at 1990, while developing nations accounted for about 4.8 billion (75%) of the estimated world population of 6 billion, they had only about 10% of the world's scientists and engineers. 7% were in Asia, 1.8% in Latin America, 0.9% in Arab countries and 3% in Africa.

These countries had barely 3% of the computers in the world and invested only about 3 billion dollars in scientific and technological research. The world economic giants on the other hand accounted for only 25% of the world population, but had 90% of the world's engineers and scientists, 97% of the computers and had invested 220 billion dollars in research.

- The systematic utilisation of the resources and forces of nature that is facilitated by the knowledge of nature, provided by science, in order to enhance the quality of human life is known as?
 - a) Science
 - b) Technology
 - c) Social Development
 - d) Development

- b) Technology

Now, with the prevalent conception of sustainable social development as the effective and responsible coordination of available economic, political, cultural, ecological, moral and spiritual resources for the enhancement of the overall wellbeing of people through an increase in GNP per capita, life expectancy, access to education, health care services, housing, sanitation, drinking water and food, the question to grapple with now is: how precisely does technology enhance development.

An easy way of addressing this question, which we would now adopt, is to chronicle how the overall well-being of people has been enhanced by technology. We may begin with food production, meant to meet one of most basic of human needs.

No doubt, technologised or mechanised farming has greatly enhanced the production of food that is much needed by the ever-increasing population of the world. With technologised farming,

PHI 401: Knowledge and Development

food is now produced in the quantity required by the large population of people in contemporary society in a way that the traditional methods of farming could not have provided.



Figure 5.4: Technologised Farming

Source: SchulPortals Inc. ©

Besides, it has also made food production not only easy and precise, but has also facilitated the effective management of both human and natural resources involved in the process of food production and distribution.

With regards to the healthcare delivery system, the use of technology has made diagnosis of illnesses to be easy, quick and precise. Today, with the benefits of medical laboratory technology, for instance, it has become very easy to quickly and precisely diagnose ailments and proffer cures. The use of such equipment as the x-ray machine and various forms of scanning machines have also rendered medical diagnosis and proposals for treatments and cures to be very precise.

In the area of education and communication, the benefits of technological advancement have become obvious and incontestable. For instance, with the use of such equipment as the computer, projector, internet and other technology based teaching aids, the process of teaching and learning across the various levels of education has been greatly enhanced. Now, it is possible for a scholar to access educational materials and data from any part of the world in minutes via the internet.

Technology has facilitated the production of diverse equipment and machines that not only free humans from drudgery but also alleviate poverty, facilitate pleasure and generally enhance the quality of life. With technology, both work and leisure have become easier, with an increasing number of people having more access to innumerable products of technology in virtually all sectors of life.

These include modern means of communication such as mobile phones, satellite television and the internet. On the home front, we have numerous appliances that enhance the quality of life, and with more technological advancements, these are becoming cheaper and more accessible to more and more people in society. For example, we have such home appliances as the cooker, microwave, refrigerator, air conditioner, domestic generator, inverter, satellite television and a host of other products.

PHI 401: Knowledge and Development

However, with social development defined in terms of the overall and widespread enhancement of human wellbeing, it is relatively obvious that science and technology constitute a two-edged sword, having both negative and positive impacts on human well-being.

Having highlighted some of their positive impacts above, we would now discuss some of their negative aspects which led some critics to contend that they should be avoided or at least approached with extreme caution. Indeed, the realization that science and technology impair development in some significant ways led to the renewed interest in indigenous knowledge systems as a means mediating some of the negative impacts of science and technology.

One of the areas where the negative impacts of technological advancement are most obvious is the production of weapons of warfare and mass destruction. This now threatens the continued existence of humanity itself in case of the use of atomic weapons to prosecute large scale war.



Figure 5.5: Weapons and Effect of Mass Destruction

Source: SchulPortals Inc. ©

Besides, with the creation and production of modern and technology based weapons of warfare, wars now tend to be more grievous and destructive. More people can be killed with more ease and efficiency while destruction of social infrastructure is more intense and widespread than is possible with the use of traditional or conventional weapons.

An area in which the positive impact of technology is prominent is industrial revolution that brought in its wake the mass production of many items that render life easier and better in ways that make them affordable to virtually everyone in society.

However, the industrial revolution and the associated mass production of goods al generated a massive pollution of the environment and the rapid depletion of natural resources in ways that endanger the wellbeing of both the present and future generations. For instance, the toxic gasses emitted into the air by industries have been associated with a number of respiratory disorders such as asthma and bronchitis.

PHI 401: Knowledge and Development



Figure 5.6: Air Pollution

Source: SchulPortals Inc. ©

The discharge of industrial chemical effluents into the waters and land pollute them, destroy aquatic life, create an imbalance in the ecosystem, destroy the means of livelihood of indigenous people that depend on farming and fishing, and in the final analysis generally impair human wellbeing.

Technological advancement has also been associated with such environmental challenges as global warming, depletion of the ozone layer, deforestation and the extinction of diverse species, all of which impair human wellbeing in diverse ways.

Advancement in the sphere of information technology also comes with its negative side. For instance, it has intensified the problem of unemployment and also generated new forms of computer and cyber-crimes. In terms of unemployment, workers are usually retrenched or retired in large numbers as industries and other organisations computerise their operational procedures and tasks.

With this, the tasks that several people were hitherto required to undertake can now be effectively undertaken by a single computer unit. Many fraudsters now take advantage of the existing level of technological development to carry out criminal activities and defraud people in ways that were previously impossible.

Now, it is possible to sit down behind a computer in one part of the world and either steal money from a bank account in another part or adopt a false identity on-line in order to defraud innocent people.

In addition, technological advancement has hindered the cultivation of good inter-personal relationships that is best enhanced through one-on-one interaction. Now, people prefer to watch diverse programmes on satellite television, network with people via the various internet social network facilities or play computer based games.

These have a way of hindering the cultivation of those values and attitudes that would facilitate cooperative and peaceful interaction in society. Besides, the use of technology based gadgets such as computers and calculators seriously impair the development of our mental capacities.

PHI 401: Knowledge and Development

Now, rather than try to commit to memory in order to remember basic facts and figures, we simply store important data into the memory of computers and other gadgets. Today, many youngsters could hardly carry out the simplest of calculations without the use of a calculator.

Summary of Study Session 5

In study session 5, you have learnt that:

1. Science can be defined as any systematised or organised body of knowledge that has been critically tested, beyond reasonable doubt, and derived from the external world through experience, experimentation and generalisation.
2. The four basic characteristics of science include:
 - Specific or Exact character
 - Public in character
 - Impersonality
 - Conclusions
2. Technology can be defined as any activity resulting in the procedures for creating and building things that would enhance the quality of life in terms of diet, reduction of diseases and illnesses, provision of qualitative education and adequate shelter among other things.
3. Social development has been conceived as the enhancement of the overall wellbeing of people through an increase in GNP per capita, life expectancy, access to education, health care services, housing, sanitation, drinking water and food.

Self-Assessment Questions (SAQs) for Study Session 5

Now that you have completed this study session, you can assess how well you have achieved its Learning outcomes by answering the following questions. Write your answers in your study Diary and discuss them with your Tutor at the next study Support Meeting. You can check your answers with the Notes on the Self-Assessment questions at the end of this Module.

SAQ 5.1 (Testing Learning outcomes 5.1)

5.1 Define Science

SAQ 5.2 (Testing Learning outcomes 5.2)

5.2 Explain the Nature of Technology

SAQ 5.3 (Testing Learning outcomes 5.3)

5.3 Discuss the prevalent perception today about the relationship among science, technology and development.

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Study Session 6: Indigenous Knowledge Systems and Development

Introduction

This Study Session focuses on the indigenous knowledge system and its relationship with development. It clarifies the nature of indigenous knowledge and why it was eroded until recently when we began to experience a renewed interest in it. Some of the key reasons for the renewed interest in indigenous knowledge would also be examined. We shall also discuss how it can engender sustainable development in society.

Learning Outcomes

At the end of this Study Session, you should be able to:

- 6.1 Define Indigenous Knowledge
- 6.2 Highlight the Specific Interests in Indigenous Knowledge
- 6.3 Discuss the Importance of Indigenous Knowledge

6.1 Indigenous Knowledge?

Indigenous knowledge, abbreviated as IK; Indigenous knowledge systems cover all aspects of life, including how both the natural and the social environments are managed to enhance the prospects of survival of the indigenous people that generated it. These knowledge systems are accumulated from generations of experiences, observations, and trial-and-error experiments.

Box 6.1 Definition of Indigenous Knowledge

Indigenous Knowledge can be defined as the unique and traditional or local knowledge that exists and is developed within the context of the specific conditions of the people that are indigenous to a given geographic area.

In a fundamental sense, indigenous knowledge systems are dynamic in the sense that new knowledge is continuously added. They are innovated from within, but they can also internalize or adapt knowledge from external sources if these are found to be useful for their local situations.

In any traditional community, virtually all members partake of the indigenous knowledge existing there, albeit to various degrees. Put differently, the quantity and quality of the IK that individuals possess in a community vary.

6.1.1 Factors that influence Indigenous Knowledge

Factors that influence this variation include:

- a) Age
- b) Education
- c) Gender

PHI 401: Knowledge and Development

- d) Social and Economic Status
- e) Daily Experiences
- f) Outside Influences
- g) Roles and Responsibilities at home and in the community
- h) Profession
- i) Intellectual Acumen
- j) Level of Curiosity and Observation Skills
- k) Ability to Travel
- l) Level of Autonomy
- m) Access to Natural Resources

IK is usually transmitted through oral means and is preserved in such media as stories, songs, folklores, proverbs, dances, myths, cultural values, beliefs, rituals, community laws, and the local language. Others include agricultural practices, human memories and activities.

6.2 Specific Interests in Indigenous Knowledge

The IK system is made up of an integrated body of knowledge. Some of the areas of interest in IK are listed and explained below:



Figure 6.1: Some of the Areas of Interest in Indigenous Knowledge

Source: SchulPortals Inc. ©

1. **Learning Systems:** Indigenous methods of imparting knowledge, approaches to innovation and experimentation, and indigenous games;

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2. **Systems of Organization, Control and Enforcement:** These include traditional Institutions for environmental management, common-property management practices, traditional decision-making processes, conflict-resolution practices, traditional laws, and community controls on harvesting;
3. **Local Classification and Quantification:** This consists of a community's definitions and classification of phenomena and local flora and fauna; and indigenous methods of counting and quantifying;
4. **Human Health:** Traditional nutritional systems; human-disease classification systems; traditional medicine and the use of herbal remedies in treatment of diseases; and the locations of medicinal plants, the proper times for collection, the most useful parts, and the methods for preparing and storing medicines;
5. **Animals and Animal Diseases:** Indigenous system of animal breeding and production; traditional fodder and forage species and their specific uses; animal-disease classification; and traditional ethno-veterinary medicine.
6. **Water:** Traditional water-management and water-conservation systems, traditional techniques for irrigation, use of specific species for water conservation, and freshwater and saltwater fisheries and aquatic-resource management;
7. **Agriculture:** These include soil conservation practices, the use of specific species for soil conservation, soil-fertility enhancement practices, indigenous indicators to determine favourable times to prepare, plant, and harvest crops, land-preparation practices, indigenous ways to propagate plants, seed storage and processing, indigenous methods of sowing, seedling preparation and care, farming and cropping systems, crop harvesting and storage, food processing and marketing, and pest-management systems and plant-protection methods.

6.3 The Erosion of IK Systems

There is a paradox associated with IK systems. While there is an increasing awareness of the value of IK, it is at the same time being threatened with extinction. This is due to both a natural process, as techniques and tools are modified or fall out of use, and also due to such factors as rapid population growth, growth of international markets, educational systems, environmental degradation, and development processes. Below are some examples to illustrate the point made above:

- The introduction of market-oriented agricultural and forestry practices focused on monocropping result in losses in IK systems and practices, through losses in biodiversity and cultural diversity. For instance, policies promoting generic rice and wheat varieties devalue locally adapted species.

PHI 401: Knowledge and Development

- With the ready availability of many commercial foods, some biodiversity seems to become less relevant, such as seed and crop varieties selected over the years for their long-term storage attributes.
- In the short term, chemical inputs seem to reduce the need to tailor varieties to difficult growing conditions, contributing to the demise of local varieties.
- An increasing amount of IK is lost as a result of the disruption of traditional channels of oral communication because people no longer spend much time in their communities and consequently do not have the opportunity to learn traditional methods of communication. Consequently, it is now difficult for the older generation to transmit their knowledge to young people.
- Given that IK is transmitted orally, it is susceptible to rapid change particularly because people are displaced or when young people acquire values and lifestyles that are different from those of their ancestors.

6.3.1 IK for Sustainable Development

Given the understanding that sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs, sustainable agricultural and natural-resource development may be construed as the utilization, management and conservation of the natural resource to ensure the attainment and continued satisfaction of human needs, such as food, water, shelter, clothing and fuel for both the present and future generations.

To this end, in contemporary times, we are witnessing an increasing advocacy and propagation of IK systems with the understanding that they would facilitate sustainable development in indigenous communities. This is especially so in such areas as agriculture, environmental control, and conflict resolution.

Besides, there is also a renewed interest in IK because of the politicization of indigenous communities and the demand by indigenous peoples that they have a right to be heard in development decisions. For instance, on one hand, indigenous people now demand that their traditional rights to land and resources are recognized and officially acknowledged by all stakeholders.

On the other hand, major actors in the international political system and many national governments are also willing to listen to them given the realization that there is a need for IK as an alternative wisdom in development initiatives.

6.3.2 Importance of IK

The following illustrates the importance of IK in the contemporary drive for development in society:

PHI 401: Knowledge and Development

- Many members of indigenous communities suffer poorer diets and nutritional losses. This is associated with the eradication of traditional foods or from their substitution with non-traditional foods that are not readily available or affordable.
- Development as planned and implemented in the last 30 years, using modern scientific methods, has placed great pressure on the soils, watersheds, forests, and other natural resources. Hence, there is a gradual return to traditional means of conserving the natural environment.
- Some development solutions, premised on Western paradigms contain incorrect assumptions about indigenous communities and as such not economically feasible or culturally acceptable. Hence, they are often abandoned in indigenous communities. This has contributed to the renewed interest in IK systems as a viable alternative means of resolving developmental problems in developing societies with a preponderance of indigenous communities.

What the above suggests is that development planning, based on Western paradigms, fails to achieve the desired result that is sustainable development, in many indigenous communities. A prominent reason for this is that these development efforts ignore local circumstances and technologies that are all integrated into IK systems.

The consequences of this include wasted time and resources. In comparison, to many modern technologies, traditional techniques embodied in IK have been confirmed to be effective, inexpensive, readily available, and culturally appropriate.

Summary of Study Session 6

In study session 6, you have learnt that:

1. Indigenous Knowledge can be defined as the unique and traditional or local knowledge that exists and is developed within the context of the specific conditions of the people that are indigenous to a given geographic area.
2. Some of the areas of interest in IK includes:
 - a) Learning System
 - b) Systems of Organization, Control and Enforcement
 - c) Local Classification and Quantification
 - d) Human Health
 - e) Animals and Animal Diseases
 - f) Water
 - g) Agriculture

Self-Assessment Questions (SAQs) for Study Session 6

Now that you have completed this study session, you can assess how well you have achieved its Learning outcomes by answering the following questions. Write your answers in your study

PHI 401: Knowledge and Development

Diary and discuss them with your Tutor at the next study Support Meeting. You can check your answers with the Notes on the Self-Assessment questions at the end of this Module.

SAQ 6.1 (Testing Learning outcomes 6.1)

6.1 Define Indigenous Knowledge

SAQ 6.2 (Testing Learning outcomes 6.2)

6.2 Highlight the Specific Interests in Indigenous Knowledge

SAQ 6.3 (Testing Learning outcomes 6.3)

6.3 Discuss the Importance of Indigenous Knowledge

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Study Session 7: The Idea of Sustainable Development

Introduction

PHI 401: Knowledge and Development

This Study Session examines the idea of sustainable development; difference between sustainable and unsustainable development and also specify some of the ways to ensure that the process of social development is embarked upon only in ways that are sustainable.

Learning Outcomes

At the end of this Study Session, you should be able to:

7.1 Define Sustainable Development

7.2 Explain Unsustainable Development

7.3 Identify any three strategies that have been adopted to enhance Sustainable Development in contemporary society.

7.1 Sustainable Development

The world bank in 1991 reported that the challenge of development is that of how to improve the quality of life through education, higher standard of health and nutrition, less poverty, a cleaner environment, more equality of opportunity, greater individual freedom, and a richer cultural life while we also conserve, protect, and have adequate plans to safeguard both renewable and non-renewable resources that could be depleted through human carelessness and irresponsibility.

Box 7.1 Definition of Sustainable Development

Sustainable development is an approach to development that centres on improving the quality of human life within the context of the carrying capacity of the supporting ecosystem.

The idea of Sustainable Development emphasises that development must be environmentally friendly, human-oriented and also considerate to future generations. It is only when all of these factors are properly integrated in our understanding of and quest for social development that we can have what is now referred to as sustainable social development.

This is development that is self-generating and sustainable by being capable of meeting the needs of the present generation without compromising the capacity of future generations to meet their own needs as well as the wellbeing of the environment as a whole.

While the idea of sustainable development gives due consideration to the economic aspect of development, it affirms that the ultimate and basic purpose of economic production does not consist primarily in the increased capacity to produce goods or increase profit or prestige. Rather, it should be directed to the service of the human person in totality, taking into account essential human material needs and the basic requirements for the intellectual, moral spiritual and religious wellbeing of all humans.

PHI 401: Knowledge and Development

In being environmentally friendly, the idea of sustainable development maintains that the effort to enhance human wellbeing through the exploitation of natural resources must be responsibly done in ways that would not harm the environment and other beings with which they share the environment. It also maintains that nature should be exploited only in ways that would not hinder future generations from enjoying the resources of nature to the same extent that the present generation does.

7.2 Unsustainable Development

The idea of sustainable development holds that it is the past irresponsible and unsustainable exploitation of natural resources and industrial activities embarked upon by humans in their quest for development that is largely responsible for many of the environmental problems and their negative health implications being witnessed in contemporary times.

Box 7.2 Definition of Unsustainable Development

Unsustainable Development can be defined as the sort of development that does not consider future needs and the protection of the environment (or of social needs) on its plans. That is not always the product of deliberate carelessness.

It is also considered to underlie a number of economic and political problems. Hence, any effort to achieve development, which in the final analysis or the long term generates grievous environmental, social, economic or political problem, may be rightly described as unsustainable development. This, however, does not preclude the fact that such effort can offer some immediate or short term benefits for human wellbeing.

Some of the environmental problems emanating from unsustainable developmental practices include depletion of the ozone layer, global warming, deforestation, desertification, species depletion, water and air pollution, and acid rain. Some of these, such as water and air pollution and the depletion of the ozone layer have been identified as responsible for various human diseases prominent among which are respiratory diseases and different forms of cancer.

The recent global financial crisis presents a good example of the kind of economic problem that may be generated by unsustainable development practices or techniques.

The process of deforestation and desertification has also been incriminated for the migration of many indigenous peoples from their traditional homesteads in different parts of Africa, for example. Such migrations generate social and political tensions between settlers and indigenes, and in some cases, full-blown violent crisis as have been witnessed in Plateau state, Nigeria.

7.3 Strategies for Sustainable Development

In the quest for sustainable development, various strategies are being adopted globally. Much of these, however, involve the adoption of various knowledge system management techniques, based on science, technology and innovation that are expected to ensure that natural resources

PHI 401: Knowledge and Development

are exploited in ways that would ensure that the needs and interests of the present and future generations as well as those of the environment are adequately catered for.

This effort is generally referred to as the 'green agenda'. Consequently, a lot of research have been and are still being carried out to discover or develop ways of exploiting the resources of nature in ways that would guarantee the wellbeing of both present and future generations and at the same time preserve the environment. It is this effort that underlies the development of biotechnology for example.

In addition to the above, we should note that it is in the bid to 'go green', that is, pursue development only in sustainable ways that we have witnessed a renewed interest in the indigenous knowledge system which we have discussed in some details in the previous chapter. Likewise, the Millennium Development Goals, which we have also discussed in some details in Study Session Four are designed to ensure that social development is pursued in ways that are sustainable.

Furthermore, various agreements have been made between nations with laws established within and between nations to ensure that development is pursued by stakeholders only in ways that are sustainable. Prominent among such agreements and laws are those that border on the protection of the environment.

In Nigeria for example, there is the Environment Impact Assessment Act (Decree 86 of 1992). It is meant to ensure that industrial activities, especially in the oil producing sector, are carried out in ways that effectively protect the environment. Parastatals are also established to ensure that relevant environmental laws are obeyed by industries and corporate entities.

In the oil sector, as an example, these Parastatals ensure that oil companies carry out their operations in accordance with international oil industry standards and practices so as to ensure that sustainable development is facilitated.

These Parastatals include Department of Petroleum Resources (DPR), Federal Environmental Protection Agency (FEPA), the Oil Mineral Producing Areas Developing Corporation (OMPADEC), the Petroleum Trust Fund (PTF), and the Niger-Delta Development Commission (NDDC).

It is in this respect that we also have an increasing emphasis being laid on the need for industries and corporate entities to be socially responsible with an important component of the idea of corporate social responsibility demanding that corporate and industrial activities should be carried out only in ways that are sustainable by for instance, giving adequate attention to the protection of the natural environment.

PHI 401: Knowledge and Development

Summary of Study Session 7

In study session 7, you have learnt that:

1. Sustainable development is an approach to development that centers on improving the quality of human life within the context of the carrying capacity of the supporting ecosystem.
2. Unsustainable Development can be defined as the sort of development that does not consider future needs and the protection of the environment (or of social needs) on its plans. That is not always the product of deliberate carelessness.
3. Strategies for sustainable development were also highlighted.

Self-Assessment Questions (SAQs) for Study Session 7

Now that you have completed this study session, you can assess how well you have achieved its Learning outcomes by answering the following questions. Write your answers in your study Diary and discuss them with your Tutor at the next study Support Meeting. You can check your answers with the Notes on the Self-Assessment questions at the end of this Module.

SAQ 7.1 (Testing Learning outcomes 7.1)

7.1 Define Sustainable Development

SAQ 7.2 (Testing Learning outcomes 7.2)

7.2 Explain Unsustainable Development

SAQ 7.3 (Testing Learning outcomes 7.3)

7.3 Identify any three strategies that have been adopted to enhance Sustainable Development in contemporary society.

PHI 401: Knowledge and Development

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Study Session 8: Developmental University and the Question of National Development

Introduction

This Study Session examines the role of the university in the quest for national development. We shall begin with a clarification of the concept of a university as well as discuss some of its basic functions in society.

Learning Outcomes

At the end of this Study Session, you should be able to:

- 8.1 Define a University
- 8.2 Explain the Bane of National Development in Africa
- 8.3 Highlight the roles of a University in National Development

8.1 University

A university is a social institution that provides the highest level of formal education. As a social institution, it is part and parcel of the social fabric of a given era that is committed to the education of members of society.

Box 8.1 Definition of a University

A University can be defined as a school of universal learning, a school of knowledge of every kind, consisting of teachers and learners from every quarter.

Its primordial function is to produce educated citizens that are equipped with appropriate skills and qualified to fulfill defined roles in the number required by society. As specified in Nigeria's National Policy on Education, universities are supposed to provide high-level manpower for national development.

8.1.1 Conception of a University

Since its inception in the medieval era, four basic conceptions of a university have evolved:

1. The first maintains that the primary objective of a university is to teach and educate for the sake of education, without any emphasis on any utilitarian end. This conception underlies the Ivory Tower image of the university as a community of scholars searching for and propagating knowledge for its own sake.

It can be traced back to *Aristotle* who advocated that knowledge should be sought for its own sake in an attempt to escape ignorance and not for any external utility.

PHI 401: Knowledge and Development

2. The second conception of a university, while it is hostile to public or societal service, holds that it should focus primarily on advanced research.
3. The third idea is that of a multiversity, which Omni functional is by being all things to all people. This basically combines the two conceptions of a university identified earlier, and also lays emphasis on public service.
4. The developmental university is the fourth idea of a university. This upholds the view that a university should, in all aspects, be primarily concerned with providing solutions to the concrete problems of societal development. This concern is to be fulfilled through teaching, research and community/public service.

The substantial difference between the third and the fourth conceptions of a university is that while the third advocates that a university should give attention to teaching, research and community service equally, the fourth maintains that the primary concern of a university should be to provide solutions to the practical problems of social development.



Figure 8.1: University of Ibadan

Source: SchulPortals Inc. ©

8.1.2 The Idea of a Developmental University

The prevalent conception of the university in virtually all developing societies is that of a developmental university. This idea insists that universities in developing countries must be relevant for and committed to national development. It is expected to generate ideas, train manpower, and provide services for the furtherance of human equality, dignity and development.

The idea of a developmental university is reflected in the 1981 Nigerian National Policy on Education, especially where it is stated that the curriculum should aim at producing practical persons, and the course content should reflect *national needs, and not just a hypothetical standard*.

PHI 401: Knowledge and Development

Likewise, the drive towards making Nigerian universities essentially developmental is evident in the University of Ibadan Vision for the 21st Century. Here, it is stated explicitly that the basic objectives of the University include making University of Ibadan more responsive to global demands, the national needs of the country, as well as those of other universities and graduates.

Activity 8.1

How can a university enhance national development?

Time allowed: 1 hour.

8.1.3 Factors that Encourage the Wide Acceptance of Developmental University

Several factors underlie the wide acceptance given to the notion of developmental university in many developing countries.

- One of these is the sense of national responsibility expressed, either collectively or individually, by university authorities and academic staff that the intellectual and physical resources of the university should be placed at the service of the nation as long as this pursuit is consistent with the teaching and research objectives of the university.
- Second is that the idea of developmental university is encouraged by government. This is achieved by commissioning contract research and consultancies on specific development problems, sponsoring civil servants for in-service trainings programmes to equip them for development projects, and prescribing national service for university students in an attempt to instill in them basic development orientation.
- A third factor is financial in nature. There is the general perception that universities should justify the huge amount of money expended on them by ensuring that they address the pressing problems that hinder social development.
- From another perspective, universities also tend towards issues of development in order to attract or compete favourably for allocation of resources from government. The underlying assumption here is that because universities have high costs, they need to be practically relevant to the problems of development as well as other areas of social needs.
- This fact is further accentuated by the fact that the pressure of allocation of resources among the three tiers of education, the primary, secondary and tertiary levels, necessitate that universities always demonstrate that they should have access to the scarce resources.

The interests and focus of the international donor community constitute the fourth factor that pressure universities towards developmentalism.

Donor agencies are mostly only interested in giving aids, grants and other forms of support to those universities that are relevant to national development by adopting a problem-solving approach to social problems as well as those problems peculiar to the system of education itself.

PHI 401: Knowledge and Development

Hence, universities, in order to access foreign grants, tend to focus more on issues pertaining to development.

8.1.4 Challenges for a Developmental University

As identified earlier, the traditional function of a university is to produce educated citizens that are equipped with appropriate skills and qualified to fulfill defined roles in the number required by society.

Beyond this, however, a developmental university is expected to provide solutions to concrete problems of societal development. It is in this regard that more emphasis seems to be laid on community/public service than on teaching and research. Community service is to be pursued by:

- (1) Ensuring that the developmental plans of the university are integrated with or linked to national development plans;
- (2) Coordinating its activities with public and private agencies, including other tiers of education;
- (3) According recognition to academics who engage in developmental activities;
- (4) Providing necessary infrastructure for developmental activities;
- (5) Emphasising the developmental role of the university; and
- (6) Facilitating national integration by reducing or eliminating all forms of inequalities.

A challenge confronting developmental universities, however, is how to effectively combine the traditional functions of a university with its developmental responsibilities. Obstacles that hinder a university from contributing effectively to national development while it remains faithful to its traditional functions include the lack of commitment of government in many developing countries to national development.

Rather, many of the political leaders and government officials in these countries are more committed to their survival and continuation in power, and personal enrichment. These tendencies are clearly inimical to development and would definitely frustrate any development initiative taken by any university.

Another complication relates to the question of competence. The argument here is that academics in most universities were not specifically trained to pursue development the way they are being required by advocates of developmental university. As such, for them to be effective in this pursuit there would be a need for retraining, which would require time and sufficient motivation.

Besides, many academics are conservative and are quite impervious to change. For instance, the ego, self-esteem and professional self-image of academics hinder the kind of retraining and transformation that is requisite for academics to be positioned to contribute to national development the way they are expected to by advocates of developmental universities.

Many of them rather prefer to defend, protect and perpetuate their academic integrity and the form of training they have always known and from which they derive their professional legitimacy.

PHI 401: Knowledge and Development

A further complication for developmental universities is revealed when we consider the principles of freedom and autonomy generally acclaimed to be central to the existence of universities. The university system is expected to be founded on the twin principles of academic freedom and autonomy.

When these principles are compromised, the ideal university system cannot be sustained. While the idea of academic freedom creates room for the free pursuit of knowledge and its dissemination by individual academics without any interference, either from the state or public, university autonomy allows for institutional independence in the pursuit and dissemination of knowledge.

However, it must be noted that the freedom of academics in teaching and research as well as the institutional independence of universities need not and cannot be absolute. For instance, while academics should not be indifferent to prevailing social realities, universities as institutions of learning are financially accountable to government and other agencies that provide them with funds.

Another problem for developmental universities, from the perspective of the principles of academic freedom and autonomy, is that by being primarily concerned with providing solutions to the concrete problems of social development they tend to be closer, more dependent and accountable to government.

This inevitably hinders universities autonomy and objectivity in the pursuit of truth. For instance, as academics and university administrators either get co-opted or appointed into policy positions in government or are awarded research consultancies by government, as a salary augmenting activity, they lose their freedom to pursue the truth or to be critical of government.

Besides, universities' primary concern for development in a fundamental sense restricts their research and teaching focus in ways that might be inimical to a broad based knowledge generation and dissemination. It takes academics off their statutory function of teaching and research.

Closely related to the above is the problem described as functional overload. This is the problem of being overloaded with so many responsibilities with the consequence that none of them are fully met in the final analysis. The additional burden to be developmental in focus is often very alluring for its associated financial benefits.

Academics are able to attract funding from donor agencies or contracts from government and non-governmental organisations for commissioned research on issues relating to development. Hence, they are quick to engage in these incomes augmenting activities that are time consuming, energy sapping and which distract them from the essential academic services of teaching and research.

PHI 401: Knowledge and Development

Such developmental interests and projects come with other benefits for academics such as public recognition and greater exposure to real life problems of development. It also helps universities to retain competent hands that otherwise would have been lost to either internal or external brain drain.

But this has its flipside, which includes commercialisation of research, externalisation of the locus of research from universities and scholars, over-commitment to development issues and diffusion of interests and attention which leads to superficiality, erosion of academic and specific professional norms as the scholar's reference group is no longer his academic community but external donor agencies.

With the above complications besetting the idea of developmental universities, the fundamental question to address now is:

Activity 8.1

How can universities remain faithful to its traditional functions of teaching, research and community service and at the same contribute effectively to national development?

Time allowed: *one hour*

To answer this question effectively, it would be helpful to examine what precisely the bane of development in Africa is.

8.2 The Bane (Hindrances) of National Development in Africa

Africa, for all practical purposes, remains largely underdeveloped in spite the availability of vast human and natural resources. All the development plans and structural adjustment programmes have failed to yield expected results.

The two most touted reasons for the continuing state of underdevelopment in Africa are its:

- Colonial experience
- The scourge of bad governance as a result of inept leadership

Given the wide array of literature on these issues, we would not belabour them here.

However, while these factors contribute to the underdevelopment of many of the countries in Africa, there appears to be a more fundamental factor responsible for its state of underdevelopment: a moral deficit in the psyche of both the general citizenry and also the people who are to execute the development plans and programmes.

This manifests in various forms of vices that include dishonesty, greed, discrimination and injustice across virtually all spheres of social existence. These vices in turn generate a lack of focus, accountability and insufficient dedication that fuel underdevelopment in Africa.

In this regard, there is the argument that sustainable social development is dependent on an asymmetrical relationship between the level of control human beings have achieved over the

PHI 401: Knowledge and Development

physical world and the mastery of their world of politics, religion, culture and interpersonal relationship.

It is observed that while humans have achieved an impressive level of control over the physical world, as is evident in the innumerable scientific and technological achievements, we have not achieved the same level of success in terms of human morality and spirituality.

Hence, many people are still enslaved to basic instincts, personal desires, emotions and prejudices that impede the readiness of people or groups of people to actually cooperate with one another, undertake requisite actions and make sacrifices that are necessary for the kind of development that is both inclusive and sustainable.

In addition to the above, there is also a general technical deficit in many African nations. Accounts abound on the fact that Africa is backward scientifically and technologically, and how this contributes to its general state of underdevelopment.

The realisation of the important role of science and technology in the process of development accounts for the technical conception of development as the acquisition of scientific knowledge and technical know-how with their associated material and economic benefits.

This implies a significant control over the natural and social environment, increase in agricultural production, improvement in the provision of essential services and social infrastructures like schools, roads, dams and the establishment of industries. From this perspective, a society is described as developing as more and more of these facilities and institutions are provided.

It is in an attempt to correct the technical deficit that more emphasis is being laid on the teaching of science based courses than humanity based courses in universities. In Nigeria, as an example, the National Policy on Education stipulates that the ratio of Science to Liberal Arts students in Nigerian universities should be 60:40. In addition, several universities of technology and agriculture have been instituted in a further attempt to rectify the technical deficit in the country. Similar policies have been adopted in other African countries. For instance, in former Zaire, now the Democratic Republic of Congo, the policy of compulsory enrolment and preferential treatment for students in the physical and natural sciences was adopted .

8.3 Roles of a University in National Development

With the above understanding of the bane of national development in Africa coupled with our understanding of the primordial function of a university as the production of educated citizens or high-level manpower equipped with appropriate skills to fulfill defined roles in the number required by society, we can now address the question of how universities can affectively respond to pressing national developmental needs while at the same time remain faithful to their primordial functions.

Taking a cue from Plato's idea of justice, the overall wellbeing of society is predicated on each individual, class and social institution focusing on the function he or she is specialized in, and in a harmonious cooperation with one another.

PHI 401: Knowledge and Development

The principle of division of labour is central in this. This suggests that for social development to be achieved in society, individuals, classes and institutions must focus on the functions that they are specifically trained and equipped for, and also maintain a harmonious relationship with others without interfering in their areas of specialisation in society.

Bringing the above considerations to bear directly on the role of the university in national development, it follows that universities would be in a position to contribute more effectively to national development if they concentrate on those functions they are designed and equipped to carry out while they maintain a harmonious relationship with other social institutions without interfering in their areas of specialisation.

The rationale of this position is better appreciated if it is considered against the background of the problems of competence and functional overload identified earlier with regards to the idea of a developmental university. The developmental university is faced with the problem of competence in the sense that it embarks upon developmental tasks for which it is not specifically trained and equipped.

The challenge of functional overload hinders a developmental university from being maximally productive with regards to both its traditional functions and its developmental pursuits.

The university as a social institution that provides the highest level of formal education, traditionally, is designed and equipped to produce educated citizens and high-level manpower equipped with appropriate skills required for social development.

The fact that two of the major problems responsible for the underdeveloped state of many African countries have been explained earlier to be a combination of moral and technical deficits suggests that universities have not been very successful in producing the kind of educated citizens equipped with all the competencies (technical, political, economic, and moral) required for social development in African nations.

Indeed, education, at all levels, should focus on the moral and spiritual development of individuals as much as it concentrates on technical skill acquisition and cognitive competence.

Education should aim at the inculcation of such personal values as honesty, probity and equity that are requisite for national development. Thus, apart from the generation and dissemination of universal knowledge, universities should also pay attention to the knowledge of and practical acquisition of those personal values that are essential for social development in a nation.

PHI 401: Knowledge and Development

Summary of Study Session 8

In study session 8, you have learnt that:

1. A University can be defined as a school of universal learning, a school of knowledge of every kind, consisting of teachers and learners from every quarter.
2. The roles of the university in the process of national development.
3. National Development is a process of effective and responsible coordination of all the resources available to a nation for the improvement of the capabilities, freedoms and general wellbeing of its citizens.

Self-Assessment Questions (SAQs) for Study Session 8

Now that you have completed this study session, you can assess how well you have achieved its Learning outcomes by answering the following questions. Write your answers in your study Diary and discuss them with your Tutor at the next study Support Meeting. You can check your answers with the Notes on the Self-Assessment questions at the end of this Module.

SAQ 8.1 (Testing Learning outcomes 8.1)

8.1 Define a University

SAQ 8.2 (Testing Learning outcomes 8.2)

8.2 Explain the Bane of National Development in Africa

SAQ 8.3 (Testing Learning outcomes 8.3)

8.3 Highlight the roles of a University in National Development

PHI 401: Knowledge and Development

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PHI 401: Knowledge and Development

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